

**A - Liberal Arts /
Humanities and Social Sciences**

A - Liberal Arts /Humanities and Social Sciences

Southeast Asian College Students' Levels of Perception and Satisfaction Towards Virtual Learning Education in the New Normal: The Philippines-Thailand Experience	1
Cliff Ransom Wendell B. Lilangan, Phrakittisarasuthee, Phrakhru Vinaiyakankovit, Phramaha Sayan Pemasilo, Samran Srikammul	
The Triarchic Model of Psychopathy and Humor Styles: Sex Differences and the Non-moderation of Sex	26
Mary Ann B. Felker, Vince Michael I. Furman, Ichiro S. Muramatsu, John Omer M. Punzalan, Reymond Neal C. Cruz	
High School Teachers' Technical Difficulties Amidst COVID-19 Pandemic	39
Andre Brian D. Azarcon, Renith S. Guanzon, Maria Christina F. Bagundol	
Oral Communication Performance in Relation to Selected Variables	56
Cyreljoy M. Ebrada	
Responsiveness of Higher Education Institutions in the Philippines for 21st Century Learners	67
Roger A. Martinez, Jr.	
Student Pilots' Flight Performance: Learner Self-Assessment, Debriefing, and Approaching the Debriefing Session	75
Julian Gabriel D. Tinapay, Allen Carlo M. Pilotin Jeric B. Abari	
Analyzing the Linguistic Features of Peppa Pig and its Role in the Language Development of Young Viewers	82
Princess H. Policarpio, Cherryl L. Campos, Cynthia G. Dela Rosa, Jonathan R. Carreon	
Teaching Practices and Challenges Encountered by SHS Teachers in Oral Communication in Context Subject	94
Kathlyn Joy G. Guevarra	
The State of Special Education Based on the Practices/Methods that fall under the different Placements of the Least Restrictive Environment	114
Daniel Jr. C. Barolong, Carmela S. Dizon	
Context and Transition of Leadership Views in the Use of Technology in Education	123
Ednar Rivera Corpuz, Jesse M. Balinas	

The Ecopedagogical Competence of Marian Educators: Prospect for Ecoliteracy, Ecophilia ad Green Campus	131
Mark C. Balonquita, Haydee D. James, Sherwin A. Marciano Christopher Allen S. Marquez, Felipe V. Nantes, Jr.	
A Stylistic Analysis of Leni Robredo’s and Bongbong Marcos Jr.’s Proclamation Rally Kick-Off Speeches	143
Roberto V. Guzman Jr., Lalaine D. Antigo, Judy Ann A. Babor, Jessa Leigh T. Bugarin, Khyla Rose L. Ramos	
Information Technology Teachers and Students' Acceptability of Open Education Resources for the Adoption of a Flipped Classroom	155
Gertrude G. Danao, Rogie B. Taborda, Rocel Audrey J. Batara, Mabel D. Mamaoag	
Bolstering Hybrid Facilitation of Learner -Centered Teaching vis-à-vis Re-appropriated Pedagogy and Intervention on Academic Challenges	168
Liberty A. Rosario	
Farm Mechanization Among Tenant Farmers in Northern Philippines: Implications to Cultural Practices, Gender Roles, Household Food Security and Socioeconomic Status	182
Samuel B. Damayon, Pearl Via S. Coballes, Kerwin N. Bayot, Brian M. Baristo, Rodora P. Tipay	
An Investigation of Students’ Perceptions on the Effectiveness of Online Learning and Their Attitudes towards Online Learning	198
Rattikan Saelee, Patcharin Emprakhon, Wanisara Meebun, Anchisa Thawornchaiying, Aphinya Wongwai, Kamolrat Khamya, Khwanchanok Suebsook	
Investigating Factors Causing Anxiety in Speaking English of Thai University Students: The Case of Students in English Program at HCU	218
Nattapon Kaewchoom, Siripreeya Thamthangsath, Tunteera Langu, Niramol Rungsang, Chanita Meejit, Pongpatchara Kawinkoonset, Khwanchanok Suebsook	

International

หน้า

The Prevalence of Cyberbullying Perpetration and Victimization among Undergraduate English Major Students	227
Napatsorn Sriduang, Chulatip Yaothaisong, Wanaree Mangrueng, Thanyarat Khotsuwan, Worada Khuntong, Suwat Pienpanichskul, Suphatha Rachayon	
Empowering ESL Teachers with Generative AI	243
Peter Snashall	
The Effects of Teaching English Using a PODACST on the Listening Ability of Thai EFL Learners	253
Armanaya Montawat, Kanyarat Chaicharoey, Sunitcha Chantarachote, Danukan Yiain, Pongpatchara Kawinkoonlasate	
Low-Carbon Destination Attributes in the Viewpoints of Thai Tourists	267
Tantawan U-napark, Pisorn Janvanichyanont, Prapakorn Seetha, Andhika Pradana, Kosin Prasarnklieo, Natha-Orn Voramongkolchai	

Southeast Asian College Students' Levels of Perception and Satisfaction Towards Virtual Learning Education in the New Normal: The Philippines-Thailand Experience

Cliff Ransom Wendell B. Lilangan, Phrakittisarasuthee, Phrakhru Vinaiyakankovit, Phramaha Sayan Pemasilo, Samran Srikammul

Holy Angel University, Angeles City, Philippines

Email: clilangan@hau.edu.ph

Abstract

The research entitled 'Southeast Asian College Students' Levels of Perception and Satisfaction Towards Virtual Learning Education in the New Normal: The Philippines-Thailand Experience' is aimed to 1) find out the level of satisfaction towards virtual learning education of the students, and 2) to find out the levels of satisfaction towards virtual learning education of the students from the representative schools, namely; Philippines and Thailand. The research participants consisted of 151 Filipino undergraduate students and 372 Thai undergraduate students. The research instrument is 5-scale Likert questionnaires in both Thai and English version in a Google form. This research used descriptive statistics, correlation, and T-test for independent samples in the measurement and analysis of the results. The findings were tabulated and explained accordingly in relation to the research questions or statement of the problem. The research results revealed that there have been some basis for level of perception of students between two countries as shown in some details. For the level of satisfaction between two countries, there was a significant difference between the two countries. This might imply that students from the two countries differ in terms of their respective resources, status, and culture.

Keywords : Virtual Learning Education, Perception, Satisfaction Learning in the New Normal Era

Introduction

The years succeeding the rise of COVID-19 pandemic have been unusual years. With the advent of the COVID-19 pandemic, the entire globe became affected in one way or another. From businesses to social gatherings, from entertainment to small and medium enterprises, and from tourism to education, all things were impacted in one way or the other. Life, it appears, would never be the same again.

It was in December of 2019 when the first official case of COVID-19 was initially detected, confirmed, and reported in Wuhan city, within the Hubei province of China. The COVID-19 is a disease caused by the novel corona virus named and called SARS-CoV 2 (Hua & Shaw, 2020). Several months after the earliest infection was reported, the number of COVID-19 cases beyond China saw a dramatic and drastic increase (Bedford et al., 2020). This prolonged threat and risk which gradually spread worldwide pushed the World Health Organization (WHO) to make a pronouncement, declaring this COVID-19 a pandemic sometime in March 2020 (WHO, 2020).

Number of infections and active cases brought about by the virus have been reported around the globe, ranging from hundreds to even more than a million. Numbers of recovered patients and casualties have been tallied and reported (WHO, 2021). This changed the way things have to be conducted. One particular area of life that got affected the most is the world of education.

With governments around the world imposing lock-downs and quarantine measures against mass gatherings, the educational system has been badly hit (Schoening & Wilcox, 2022; Ritchie et al., 2020). To say that the year 2020 was severely impacted is an understatement. Yet the brighter side to this was that the education system around the world and in Southeast Asia gave in to the process of revolutionizing and adapting to these seemingly difficult and challenging circumstances which put the traditional way of learning to a test. Classroom human interactions have now been done through virtual learning process, thus altering the educational landscape, leading to the newly adopted term, the “new normal” (Cuaton, 2020).

Narrowing it down to the local level, students from all levels are now confronted with the internet issue. Not all learners have strong access to high-speed internet connections while some, unfortunately, do not really have access to internet connections at all (Dayagbil et al., 2021).

The American educational system also faces the issue about the socioeconomic disadvantaged learners who like in some Asian countries, have also very limited or no personal direct access to fast internet connection in the midst of this COVID-19 pandemic. American school districts also resort to transition to online virtual learning during this crisis which has global ramifications (Reilly, 2020; Auxier & Anderson, 2020).

Virtual learning environments where both learners and lecturers are somewhat isolated with no in-person contact with the use of information and communication technology to delivery lectures and instructional materials require the practice of academic self-regulation and proficiency in utilizing online learning resources. However, a number of students reported that online learning has given them more negative outcomes than benefits. Students who underwent online studies reported that they lack focus and attention due to numerous factors at home and feared for possible criticisms and humiliation when participating in classes (Coman et al., 2020; Moore et al., 2011; Zakariah et al., 2016).

It's important to note that students' satisfaction is linked with their perceptions about studies and actual experiences, and that students' academic performance is also linked to their satisfaction. This applies to an online learning environment as well (Landrum, 2020).

Factors that may affect students' satisfaction in virtual learning are computer competency, technology orientation, and smooth delivery of course contents (Jan, 2015). Apparently, students' online instruction perception can critically affect their satisfaction.

A study by Hassan et al. (2021) investigated the perceptions and online course satisfaction of university students in the Kingdom of Saudi Arabia (KSA) through survey questionnaires. The study suggests that there is a need to enhance students' perception in higher education taking virtual classes by applying practical recommendations such as but not limited to how instructors should be interacting with students addressing their concerns as well as creating a more conducive online learning environment (Hassan et al., 2021).

In another research article, Tan et al. (2021) reviewed more than 61 peer-reviewed research pertaining to students' perception to online learning. Favorable perceptions included 1) motivation and satisfaction, 2) effectiveness, 3) good engagement, 4) ease of navigation, 5) comfort and flexibility, 6) positive online experience, 7) improvement of learning outcomes, and 8) acceptance by majority of the students. Unfavorable perceptions included 1) lack of interaction, 2) ambiguous interaction, 3) lack of technological skills and competency, 4) lack of support, and 5) academic dishonesty.

Most of the researches that were ventured into are of western studies and other parts of the world and only a few researches about this have been done in Asia, so with this

background in mind, this research aims to determine how this so-called “new normal” in the education setting is viewed through the lens of the college students of representative schools in two Southeast Asian countries, namely the Philippines, and Thailand, one representative school from each country mentioned, in terms of how these students cope and respond with virtual learning education as they get to experience online classes for the entire semester.

Review of Related Literature

Various nations particularly those affected by COVID had resorted to virtual learning in the academic landscape to address the needs of both teachers and learners. On the part of the learners, online education came as a new mode which cannot be avoided because the existing situation demands it. Gaps in research, particularly among Southeast Asian nations, are identified. In Southeast Asia, both the Philippines and Thailand became the main focus of online learning context in this study.

Defining Perception and Satisfaction

Perception refers to the way one thinks about something and the idea of what it is like. It is the way one notices things with physical senses as well as the natural ability to understand or notice things quickly. In the area of philosophy, psychology, and cognitive science, perception is the process of obtaining consciousness or understanding sensory information (Khadka & Maharjan, 2017). Learner-instructor interaction and learner-content interaction integrated together with the efficacy of technology are reasonable marks of positive student perceptions (Kuo et al., 2013).

In investigating perception, Applied Psychology students in a graduate program were surveyed in regard to their online practicum course, establishment of an online presence, the encouragement of a mind-shift in their online practicum, the support towards problem-solving within technology, and the support towards being open and flexible in an ever dynamic nature of technology, the result (Wilcox & Lock, 2017).

Satisfaction pertains to the social, cognitive, and teaching presence as essential to students’ learning (Mahmood et.al, 2012). As a person’s expectation goes higher, his or her satisfaction also becomes higher (Tao, 2014). In the parlance of learning, five elements of student satisfaction were introduced: learner relevance, active learning, authentic learning, learner autonomy, and technology competence (Ke & Kwak, 2013).

International Online Learning Context

Worldwide, the most dominant and common method that countries utilize to continue the educational process of schools and universities is through online studies. The number of universities that offer online programs in addition to the traditional model increases every year. Because countries delved into online studies without past experience and context, the time and results of students’ work of the near future will show whether the online way of education brought good results (Milicevic et al., 2020).

Alarmed about the spread of COVID-19 and the pursuance to contain it, vast number of educational institutions such as public and private universities, colleges, technical training institutes, and vocational school, were closed in regards to face-to-face classes globally. The rising concerns for Corona virus shed light to the vulnerabilities in education systems worldwide. A clear solution for this is having flexible and resilient education systems. Through meta-analysis methodology and pertinent literature, universities around the globe are revealed to opt towards online learning or E-learning. This ensures that learning institutions would not be interrupted. Staff readiness, confidence, and student accessibility

were also revealed to be a major function in ICT integrated learning. Online and remote learning are necessities in time of lock downs and social distancing due to COVID-19 pandemic (Ali, 2020).

In India, as an example, all educational institutions were closed by the second week of March 2020. Out of 364 students, 72.8% were using mobile data and 17.8% were using broadband facilities. The first year students were the only students who were exposed to 3 different online platforms. Among those respondents, 63.6% posted to be partial towards Impartus, and this was followed by YouTube, and then Google Classroom (Rafi et al., 2020).

The online and remote learning integrated with ICT is truly novel in most education systems. Several institutions focused on creating interactive networks for online classes. Video conferencing tools such as Zoom and WebEx are used in addition to learning management systems such as Infrastructure Canvas, Blackboard, and Google Classroom. Aside from those, there are applications that track students when they are taking online tests. Proctorio and Google Chrome plugin, is one of the applications available to use. Because numerous students have no past experience to remote learning, it is important to delve into the motivation behind the ICT integrated remote learning (Lata & Sonkar, 2020).

As educational institutions transitioned to remote learning without past experience, this resulted in less than optimal learning experience for the students. In the Kingdom of Saudi Arabia (KSA), researchers were commissioned to study the state of online learning pre- and post-COVID to culminate in recommendations on how to effectively build infrastructure and capacity to deliver high quality online learning. In one of the commissioned studies, there were eight dimensions, each with several sub dimensions which included survey and interview data, that were contextualized within the higher education environment of the Kingdom of Saudi Arabia in terms of development and analysis. Such dimensions or areas mentioned here were about leadership, curriculum design and planning, planning, online teaching and learning, assessment, technology, student support, training and support, and evaluation and continuous improvement (O'Keefe, et al., 2020).

Through survey method and E-Learning Readiness Scale, the relationship between e-learning readiness and academic achievement in an online course in higher-level education were examined. The scale was comprised of 33 items and six sub parts and these are: (1) computer self-efficacy, (2) internet self-efficacy, (3) online self-efficacy, (4) self-directed learning, (5) learner control, and (6) motivation toward e-learning. The results indicated that self-directed learning is the strongest predictor of academic achievement. The study concluded that e-learning readiness has to be carefully taken into consideration within a new education learning system or online and remote learning (Torun, 2020).

Determining Perception

Perception refers to the way one thinks about something and the idea of what it is like. Moreover, it is the way one notices things with physical senses as well as the natural ability to understand or notice things quickly. In the area of philosophy, psychology, and cognitive science, perception is the process of obtaining consciousness or understanding sensory information (Khadka & Maharjan, 2017). As a person's expectation goes higher, his or her satisfaction becomes higher (Tao, 2014).

At a Midwestern university, the attitudes and perceptions of students who were enrolled in at least one online-only course during the Fall 2012 semester, were explored. It aimed to uncover concrete issues and to use explicit feedback to strengthen the course design and course delivery. The findings emphasized the importance of moving from describing a phenomenon and determining what can be done about it to "action science." In addition,

instructional videos and tutorials received significant substantial positive feedback from students and were considered indispensable for assisting students in maneuvering through a web-based course. It was recommended that the student's expectations and experiences are to be considered in the areas of course format, technological support, interaction with faculty and peers, course flexibility and pace, assessment and feedback, and overall communication (Huss, 2013).

In delving deeper into the salient points of Huss (2013), the preparedness of students for an online experience was found to be the first implication in online learning. Beginning with the motive for choosing an online course in the first place, many students took an online course because a face-to-face option was not available or did not fit their desired schedule. The second reason was "strictly convenient." Only a few, a little more than 7% of the students took an online course because they believed they learn best in that environment. In simple terms, a student who took an online course because it was a last or only resort, or was intrigued merely by the expediency of not having to drive to campus, may be quite unprepared for the format, the technology, and the self-reliant nature of an online course (Huss, 2013).

Furthermore, a study by Shawaqfeh et al. (2020) measured pharmacy students' perceptions on virtual learning during COVID-19 pandemic. Through survey, the researchers determined the students' virtual learning experiences in four domains - preparedness, attitude, barriers, and areas of development. Results showed that 61.4% of the students agreed that the College of Pharmacy was well-prepared for online learning while only 19.9% disagreed. When it comes to attitudes, 49.2% showed positive attitudes toward their online learning experience while 26% showed negative attitude. Finally, 34% of the students were able to identify some barriers while 39% did not identify any.

Measuring Satisfaction

The need to measure satisfaction is very significant in assessing the success or effectiveness of online learning. By investigating the relationship of both e-course satisfaction and online learning readiness and the effect of the materials used in e-learning on student satisfaction, it was uncovered that the student satisfaction tends to increase when more materials were provided to the students. It was recommended that a lot more engaging and interactive activities such as animation, virtual classroom, video, forum, survey, chat and email be also given to the students in online learning (Topal, 2016).

The interplay of perception and satisfaction plays a crucial role in the success of online learning. Such was revealed when satisfaction was measured among students who took an online class in Alabama, USA wherein levels of student satisfaction were determined. Results showed that students who found distance learning more convenient reported higher satisfaction with their online course (Simpson, 2012).

In that study, the instrument used was the Aman's Satisfaction Survey Measures (ASSM) developed by Dr. Richard Aman. It encompasses several parameters pertaining to online learning satisfaction such as learning outcomes, assessment and measurement, learning resources and materials, learner interactions, and online course technology (Simpson, 2012).

Philippines Online Learning Context

Using the technologies that have emerged in the time of the COVID-19 pandemic has actually trail-blazed the way for the stakeholders in establishing online relationships with the same goal of ridding boredom brought about by quarantine, give relief efforts, and teach the

virtual community in relation to COVID-19 while simultaneously having a safe environment. Socio-educational implications of these virtual education learning methods made feasible because of technology have been presented in their paper most especially on how virtual learning impact social relations and human behavior (Toquero & Talidong, 2021).

Information and Communication Technology (ICT) takes a great role in any developing country. Opportunities come alongside to anyone proficient in this field. Therefore, it is important for a nation to produce ICT literate citizens required to survive and develop in this digital age. In the Philippines, the Department of Education (DepEd) is continuously introducing ICT into its system. Places that are far are being reached to make certain that no area shall be left out speaking of technology. Because the Philippine education encapsulates technology, learning processes are not transformed digitally.

As of the moment, students could actually link or access to thousands of learning materials uploaded in DepEd Online Learning Portal. Despite all of these efforts from the Department of Information and Communication Technology which the responsible department of the government regarding this, DepEd is still facing great challenges in providing innovative education.

In the practice of distance education (DE), the rapid advances in information and communications technology in the digital age is practically important. In the Philippines, DE professionals use the term “open and distance e-learning” (ODEl) in reference to new aspects of distance education. There are several so-called ‘open’ universities and ‘distance education’ institutions and schools that have shifted from predominantly print-based mode to an online mode of delivery through the use of virtual learning environment and a myriad of web technologies. Faculty training programs in Online Distance Learning must strive to create a broader range of O-Del competencies in a systematic and coherent way (Arinto, 2013).

In spite of all these creative solutions the government and educational institutions apply, Filipino students still face challenges with access in technology due to their already existing economic problems. Just like in many parts of the world, internet access is a major crisis many students face in adapting virtual learning. Numerous Filipino students reported that access to internet connection is a crisis making them “walk an hour an half” to gain access or delay project submissions until midnight when that is the only time internet is fast (Rotas & Cahapay, 2021).

Thailand Online Learning Context

The COVID-19 Pandemic or 2019-nCoV as the name of the virus (Department of Disease Control, Ministry of Public Health Thailand) has been spreading worldwide since December 2019 which has started to spread out of Wuhan City, China. Thailand is the second place in the world that the novel virus Corona was found and it was reported as the first case found in Thailand on January 13, 2020 by the Ministry of Public Health Thailand (World Health Organization-Thailand, 2020).

In Thailand, in order to prevent the transmission of the disease, the Ministry of Public Health of Thailand has announced some policies regarding practices of preventing its people from COVID-19 which are D, referring to ‘distancing’ which means to avoid touching or contracting with people in a close proximity, M is for ‘mask wearing’ all the time in order to prevent transmitting and receiving the disease, H is for ‘hand washing’ for them to clean their hands and prevent contracting germs and prevent such from transmitting to others, T is for ‘testing’ which is having temperature check when people travel and enter anywhere, and lastly, another T which is ‘Thachana,’ an application to trace the people’s timelines and track the place where the people as well as the patients have been. Hence, online learning is

necessary is an effective tool for Thai students to keep themselves on track with their study by keeping their social distancing and it helps reduce the spreading and receiving the virus.

Online learning consists of some advantages and drawbacks as follows (Thairath Online News, 2020); some of these advantages include saving the cost of traveling both for teachers and students; online application and programs that help online class attendance management, taking quizzes that are convenient for lesson evaluation, and effective way for communication among teachers and students through online; more convenient ways to retrieve more information as an online tool. Some of the drawbacks are that online learning is one-way communication which may lead to misunderstanding while the course content is being conveyed to the students; the limited access of the technological devices such as televisions, mobile phones, tablets, or internet connections; there is no full concentration towards the course contents since mobile phones might be secretly used during the class time; lack of careful consideration of the content found in the internet since some unreliable sources of online content may be accessed by students; students' parents might be the ones to complete their children's assignments or homework or these parents will give the answers to the test questions; and last but not the least, the lack of time of the parents to supervise their children due to the parents' already heavy workload.

In Thongpreecha (2021), the government policy and guidelines concerning teaching and management during COVID-19 pandemic in a school in Bangkok, Thailand. This research is qualitative research altogether with documentary data studying. The research results reveal that the sample the research participants are able to follow the government policy and guidelines concerning Teaching and Learning Management during COVID-19 Pandemic due to the readiness to have the technology gadgets and the school also has a meeting to organize and prepare for the online learning. Students are trained about studying online in case they need to.

In Chaleoykitti et al.. (2020), the effect that the pandemic has caused to the nursing study management. In this research, specific terms concerning COVID-19 are also mentioned as well as the new ways of learning context in a new normal. The findings are the following: 1) the putting off of the nursing practicum in which during the pandemic, the research participants are not able to travel to study in a laboratory or in a hospital, hence the practicum process needs to be postponed to protect themselves from receiving and spreading the virus, 2) The lateness of graduation of the nursing students since the nursing students as the sample in this study are required to perform some practicum duties in a hospital but due to the pandemic time, they need to postpone the practicum process, hence it causes also the postponing of the graduation procedure as well, 3) The changing of the classroom context, Classroom are changed from offline into online. Some applications such as Microsoft Teams or Google are often used for the online learning during the online both learning and testing processes. Moreover, according to the research findings, a factor which plays an important role is 'the disciplinary' of the students themselves as well as the obstacle concerning technology devices such as the lack of the access to the internet. While one advantage could be that the travelling time to school could be deducted as well as the cost of traveling can be eliminated (Chaleoykitti, Artsanthia, & Daodee, 2020), 4) The changing of teaching procedures-Video recording in course content have been made for the nursing students to be reviewed. The data used in online teaching are kept in Google Drive or in Microsoft OneDrive or Microsoft Stream. The teaching procedures have been changed via video Conference. One drawback could be in that some students are needed to work part-time and which leads to the lack of computer devices and time to study.5) The adaptation of the score keeping system and grading are made. 'Turning crisis into opportunity' is produced during the pandemic. Active learning is turned into 'Teach more Less learn'. The classroom lecture

is turned into online learning which is ‘Transformative Learning’. It arouses the students to understand their own feelings in order to think and observe their thoughts and comprehend the vision of the world. One needs to change oneself and study more.

In Imsa-ard (2020), the perception towards the abrupt transition from face-to-face onsite classroom into obligatory online learning due to the pandemic situation in Thailand. The number of the research participants is 310 students studying at a university. Snow ball sampling and interview process are made throughout the research procedures. Interviewing process is made with 15 participants. The research results reveal that most of the participants prefer onsite lessons rather than online learning and they also prefer onsite classes in the future as well. Moreover, they are also confident that their instructors will be able to give them assistance and instruction towards online learning (Imsa-ard, 2020).

A study by Tanawongsuwan (2020) best describes the difference between onsite and online learning in Thailand. The study investigated factors such as communication with professors, interaction and collaboration with classmates, class activity organization and participation, lab training, assignment giving, assignment submission, self-study and review, and commute on both onsite and online learning, and consequently, compared. The findings described how online classes did poorly in the area of lab training, student concentration, student interaction and collaboration and class activities. On the other hand, onsite learning could not fare well in the area of commute and self-study.

Thailand Onsite Learning During The Pandemic

COVID-19 has spread quickly all over the world since the early of 2020 as well as in Thailand which has affected the schooling system in Thailand as well. Hence, learning has been done online for a long period of time during the pandemic time. Until the pandemic situation was getting better, since the number of the COVID-19 patients was reducing, on-site classes were started to be conducted for schools on November 1 after the announcement of Thailand’s Ministry of Education (Bangkok Post Group, 2021) while there have been also some regulations every school has to follow before the onsite protocol was to be started such as the number of the teachers, at least 85% of the teachers in a school in red or dark red zones need to be fully inoculated, while 85% of the teachers in other zones need to get their first vaccination.

For the university section, on-site, together with online learning has started on June 14, 2021 according to the announcement of the Ministry of Higher Education, Science, Research and Innovation (2022) while adjustment to the pandemic situation in the area where individual university is located has been applied while following the standard issued by the Commission on Higher Education Standards for the online and on-site learning environments to be organized effectively. The Nation Thailand (2022) has also mentioned about another example of a school which has recently reopened its learning system to arrange fully on-site program despite of some negative COVID-19 patients found in the school, while the students need to be screened by using ATK (Antigen Test Kit). Once being tested negative, they will be allowed to enter the school. Hence, earlier is an example of COVID-19 screening protocol done in Thailand.

Siamrath Online (2021) has mentioned that many students preferred to study on-site in which Kasikorn Research Center (2021) revealed that 79.1% of the students have struggling with their electronic devices which means the students have not been ready to study online. The research result also showed that most of the students (50.9%) used their own mobile phone as their learning tool to study in a course and their parents were also concerned about their eye sights since they had to stare at the devices for a long time. While

some of the parents (37.8 %) thought that the internet might not be a good tool as it might not be safe for their children to receive some fake news or a chance to meet with some scammers which might be harmful to their children. Hence, on-site learning has been used in Thailand once the pandemic situation has been getting better.

Statement of the Problem

This research generally aimed to find out how Southeast Asian college students of representative schools from the Philippines, and Thailand view the online learning classes or virtual learning education in terms of their perceptions and their level of satisfaction. Specifically, the study would answer the following questions:

1. How may virtual learning experience of students from the representative school be described in terms of:

- 1.1 Reason for taking on-line class;
- 1.2 Time professors respond to emails;
- 1.3 Frequency professors communicate;
- 1.4 Medium professors use to communicate;
- 1.5 Medium professors used to respond to questions;
- 1.6 Connection through video/audio message;
- 1.7 Type of feedback;
- 1.8 Time outputs are graded and returned;
- 1.9 Inclusion of online learning modules;
- 1.10 Frequency of new content;
- 1.11 Option to work ahead;
- 1.12 Devices used;
- 1.13 Importance of cutting edge technology; and,
- 1.14 Kind of interaction?

2. How may the level of satisfaction towards virtual learning education of the students from the representative schools be described?

3. How may the levels of satisfaction towards virtual learning education of the students from the representative schools be described?

- 3.1 Philippines
- 3.2 Thailand

Significance of the Study

This study is deemed to be beneficial to the following entities or groups of people:

Administration- The administration of each representative school will find the results to be useful to them especially as the administrators craft their school guidelines and policies in response to global pandemic such as the COVID-19 situation, enabling them to ascertain and respond to the various challenges brought about by virtual learning education, and the implications and impact on their respective schools as each tries to grapple and skillfully adjust and adapt to the online learning education and the many mechanisms involved in the overall management of academic concerns.

Future researchers- They may be able to expand the scope of what this research will accomplish. This study may shed more light and angles for the future researchers to consider and look into. They may include more representative schools to have a wider scope of realization and comparison, letting them have more conclusive pieces of evidence as to the implications of virtual learning education in the Southeast Asia region.

Module developers- The findings and results of the study may help guide the developers of learning modules since schools also have made use of the modules as part of their learning management system (LMS). Module developers from each of the mentioned countries, the Philippines, and Thailand may create more modules that will best suit their respective students as they see fit. Needs for each country may vary and the module developers will surely take this fact into consideration.

Students - They may be able to understand that students from other countries go through what they are going through and may draw some inspiration and comfort that they are not entirely alone in their struggle. The students of the representative schools from each country may find this study interesting knowing that the results may further support the fact that virtual learning education does have strong implications in the way these students adjust, be it in synchronous or asynchronous learning sessions.

Teachers - The teachers, like the students, also have to adjust and adapt to the various learning management systems brought about by the virtual learning education. Through this study, they may be able to see through the findings and results and hopefully will be able to respond more to the needs of their students as different issues must be faced, assessed, and solved or at least mitigated. These teachers serve as the primary conduit of learning for the students to keep on studying in the midst of the COVID-19 trial that has global implications.

Methods

This chapter shows the different ways for this paper to answer the research questions and will identify and explain each component. It will talk about the design used, the participants and the kind of statistical sampling being chosen, the research instrument to be employed, the procedure of gathering data, the statistical analysis to measure and analyze the data, and the ethical consideration to be considered.

Research Design

This study employed the descriptive and correlative design. This correlational research design examined the relationship between two or more non-manipulated variables, in this case, the perception of Southeast Asian college students and level of satisfaction among the representative schools of the Philippines and Thailand towards virtual learning education in the new normal.

Research Setting

A private higher educational institution in Angeles City, Pampanga, Philippines and another private university, (one among eight campuses) from Ayutthaya, Thailand were the setting and locale of this research. However, to avoid undue influence, the names of the universities were not mentioned to the respondents.

Research Participants and Sampling

The respondents came from one representative school of the Philippines and another representative school from Thailand. The *Raosoft sample calculator*, which was set at 95% level of confidence, was used to generate the sample sizes from both representative schools. Out of the 11,508 students enrolled the first semester from the representative school in the Philippines, a sample size of 372 was taken, and out of 246 officially enrolled from the representative school in Thailand, a sample size of 151 was included. This was for the Academic Year 2021-2022. All students sampled from both countries were least 20 years old and above, which was the legal age in Thailand, and would not be under direct influence of

the researchers. All the participants also experienced both onsite learning before the pandemic and online learning during the pandemic.

Research Instrument

This research had two survey questionnaires, one for perceptions and the other questionnaire for the level of satisfaction. Regarding the level of perception, this research fully adopted an existing survey questionnaire prepared by John A. Huss and Shannon Eastep, both from Northern Kentucky University, United States of America. As to the level of satisfaction, this research adopted an existing questionnaire about the level of satisfaction prepared by Dr. Richard R. Aman with his student satisfaction questionnaire which was also adopted by Jill Mask Simpson of the University of Alabama, Tuscaloosa, Alabama, USA. which explicitly stated that these mentioned items or questions all pertain to level of satisfaction (Simpson, 2012).

This questionnaire about the level of satisfaction had undergone careful review from a panel of experts and was proved to be valid indeed. The construct validity was raised and met in the development of the questionnaire through the structuring of the questions revolving around 161; its reliability was tested through Cronbach alpha and the measures of its reliability were all gotten from correlation coefficients of inter-item correlations and item-total sub scale scores. These inter-item correlations between .30 to .70 have been found to be acceptable. Moreover, there was Principal Component Factor Analysis as well in the measure of reliability.

The questionnaire on perceptions comprised 16 items while the one on satisfaction consisted of 18 items. The statements contained in both existing questionnaires were universal and applicable to all students involved in online courses and teaching in whatever department these students may be in.

The 16-item questionnaire on perceptions asked students for their reason for taking an online class, how quickly and frequent professors responds to emails, how frequent professors communicate, their preferences for medium of communication, whether they see video message, their perception on type and frequency of professor's feedback, the devices used, and how important cutting edge technology and regular interaction is with their classmates. The 18-item questionnaire on satisfaction determined their agreement on aspects of objectives of online courses and its relevance, impact, variety, accessibility, timeliness, functionality, and their overall satisfaction.

The Thai version of the questionnaire was translated by a Thai professor who holds a Master's degree in English and teaches English in the same university as the research setting.

Data Gathering Procedure

The research revolved around college students of representative schools of the Philippines, and Thailand. After, having identified the number of students that served as the sample size from each representative school, all the researchers involved sent them the survey questionnaire in the form of a Google form link. This survey questionnaire was written both in English and Thai for the selected students in Thailand while it was in English for the Filipino students. The Google form link was deactivated once sufficient valid responses had been collected.

Data Analysis

This research used descriptive statistics, correlation, and T-test for independent samples in the measurement and analysis of the results. The findings were tabulated and explained accordingly in relation to the research questions or statement of the problem.

Ethical Consideration

This research strictly adhered to the code of ethics by being aware of the rights and privacy of the respondents and schools involved and engaged. All the questions and answers gathered for this study were treated with utmost confidentiality and used only for academic purposes. The researchers had no conflict of interest that could compromise the results of the study. The respondents were given informed consents and informed assents. The names of students remained hidden and if needed to mention, researchers used code names. Important information given by the respondents held by the researchers was kept until the research was over. The respondents had the right to refuse answering the questionnaire should they refuse their data stored or find the questions too sensitive for them. No harmful consequence came the participant upon refusal. In the entire conduct of the study, there would be no monetary value doled out to the respondents and they too would be made aware about this agreement.

Data extracted from the research was stored in secured external hard disk drive. The data was destroyed after two (2) years prior to finishing the research. The respondents were informed regarding this one so that these gathered data conformed to the Data Privacy Act.

Results

This section presents the results of the descriptive and correlative analysis of the research. The results section presents data that answers the four statement of the problem - 1) level of perception, 2) level of satisfaction, 3) significant difference in perception, and 4) significant difference in satisfaction

Table 1 shows the comparison of the level of perception towards virtual learning between the two countries. As shown, students from the two countries have different perceptions of virtual learning.

In the Table 1, most of the Filipino students believed that their reason is “Face-to-face did not fit my schedule or was not an option” with 43% of the total respondents. Furthermore, 25% find online classes as strictly convenient for their schedule, 5% understand that they learn best in an online environment. In Thailand, 79% of the Thai students believed that their reason is “Strictly convenient” for their schedules. The other 16% find that face-to-face learning did not fit in their schedule was not an option due to most schools implementing online schools out of government regulation. Additionally, 40% of the students stated that they learn best in an online environment.

When it comes to how students perceived their professor’s response to emails, 33% of the Filipino students responded that their professors respond to their emails “within a few hours”, 26% perceived that their professors respond “within 12 hours”, 33% perceived “within a few hours”, and 12% perceived “within 1 - 2 days.” In Thailand, 42% of the Thai students perceived that their professors respond to their emails “within 24 hours”, 21% perceive that their professors respond “within 12 hours”, 29% responded “within a few hours”, and lastly, only 8% perceive that their professors respond “within 1 - 2 days.”

When it comes to the frequency the students communicate with professors, 33% of the Filipino students responded that they communicate with their professors several times a week, 51% responded that they communicate weekly, and 16% communicate daily. In

Thailand university, 22% of Thai students communicate with their professors several times a week, 71% perceived that they communicate weekly, and only, 7% of Thai students perceived that they communicate daily.

Students' from both countries greatly differ when it comes to how they perceive their professors' medium to communicate. Most Filipino students amounting to 69% perceived that their professors usually use email announcement integrated in course management system, 2% perceived that their professors preferred text messages, 6% perceived that their professors use audio, and 24% perceived that their professors use chat messages to communicated. Meanwhile, 17% of the Thai students perceive that their professors communicate through email announcements integrated in course management system, 22% of the students perceived that their professors uses text messages, 11% perceived that their professors use audio, and 47% perceived that their professors use chat messages.

In the area of "Medium professor use to respond to question", 78% of the Filipino respondents responded that the responds were received by email, 3% responded that they receive responses through phone calls, 3% receive responses through audio messages, and 16% receive video tutorials via email. Furthermore, 25% of the Thai students responded that they received responses from their professors via email, 35% via phone call, 21% via audio message, and 26% receive video tutorial via email.

Most of both Filipino which is 51% and Thai students which is 85% responded that they had connection through video/audio message, 6% of the Filipino students while 11% of Thai students responded that they had not connected through video/audio message, 43% of Filipino students and 4% of Thai students responded that they have never experienced a video or audio message from a professor.

For the feed backing as well, most of both Filipino which is 54% and Thai students which is 46% said that they received score and written overall feedback on the assignment, 36% of Filipino students and 25% of Thai students perceived that their feedback was scored and has specific feedback on individual items, 7% of Filipino students and 15% of Thai students perceived that feedback with a grade and score were enough, 3% of Filipino students and 14% of Thai students perceive that their feedback were scored and had audio or video feedback on items missed.

Most of both Filipino which is 57% and Thai students which is 78% showed their responses that their professor returned their assignments/exams to them within 4 – 7 days. On the other hand, 43% of Filipino students and 22% of Thai students perceived that their assignments/exams were returned to them within 1 - 3 days.

For the online learning module, most of both Filipino which is 77% and Thai students which is 78% responded that they studied online class with the content/audio and video messages from the instructor, 16% of Filipino students and 9% of Thai students received content only when they studied online class, and 7% of Filipino students and 14% of Thai students studied online class with only content and audio messages.

When it comes to how frequent the students should receive new contents, most of both Filipino which is 67% and Thai students which is 65% said that new contents should be released weekly, 23% of Filipino students and 21% of Thai students should receive new contents more than once per week, and 9% of Filipino students and 15% of Thai students should receive new content every 2 weeks.

Most of both Filipino which is 80% and Thai students which is 91% responded that they had option to work ahead while 20% and 9% of Filipino and Thai students, respectively, responded that they had no option to work ahead.

For devices, most of the Filipino students which is 63% used laptop, 20% used desktop, 16% used smart phone, and 1% used tablet. In Thailand, 23% used laptop, 6% used desktop, 61 % of Thai students used smart phones, while the remaining 10% used tablet.

Most of both Filipino which is 66% and Thai students which is 59% perceived cutting edge technology as very important, 31% and 39% deemed it somewhat important, and 3% and 2% of Filipino and Thai students, respectively, deemed it not very important.

For the regular interaction with classmates, most of the Filipino students which is 63 % and 59 % of Thai students also deemed that it was very important for the virtual learning, 31% of Filipino students and 39% of Thai students perceived that regular interaction with classmates are somewhat important, 3% and 2% deemed it not very important, and 1% of Filipino students, and none of Thai students deemed it not important at all.

In the last area, 56% of Filipino students perceived that the kind of interaction they had were small group discussion board, 16% were large class discussion board, 26% were small group projects, 2% were voice generated discussions, and 4% were video generated discussions. In Thailand, 26% of Thai students responded that they had small group discussion board, 15% had large class discussion board, 22% had small group projects, 20% had voice generated discussions, and 17% had video generated discussions.

In general, students from the Philippines have different expectations and experience in most aspects than of the students from Thailand.

Table 1

Comparison of Level of Perception Towards Virtual Learning

Indicators	Philippines Percentage	Thailand Percentage
Reason for taking online class		
Face-to-face did not fit my schedule or was not an option	43	16
Strictly convenient	25	79
I learn best in an online environment	5	40
None of the above	27	21
Time professors respond to emails		
Within 24 hours	29	42
Within 12 hours	26	21
Within a few hours	33	29
Within 1-2 days	12	8
Frequency professors communicate		
Several times a week	33	22
Weekly	51	71
Daily	16	7
Medium professors use to communicate		
Email Announcement in Course Management System	69	17
Text	2	22
Audio	6	11
Message	24	47
Medium professor use to respond to questions		
Email	78	25
Phone call	3	35
Audio message	3	21
Video tutorial sent by email	16	26
Connection through video/audio message		

Indicators	Philippines Percentage	Thailand Percentage
Yes	51	85
No	6	11
I have never experienced a video or audio message from a professor	43	4
Type of feedback		
Score and written overall feedback on the assignment	54	46
Score and written specific feedback on individual items	36	25
Just a grade/score is enough	7	15
Score and audio/video feedback on the assignment and items missed	3	14
Time outputs are graded and returned		
Within 4-7 days	57	78
Within 1-3 days	43	22
Inclusions in online learning module		
Content/audio and video messages from instructor	77	78
Content only	16	9
Content and audio messages	7	13
Frequency of new contents		
More than once per week	23	21
Weekly	67	65
Every 2 weeks	9	15
Option to work ahead		
Yes	80	91
No	20	9
Devices used		
Laptop	63	23
Desktop	20	6
Smart phone	16	61
Tablet	1	10
Importance of cutting edge technology		
Very important	66	59
Somewhat important	31	39
Not very important	3	2
Not important at all	0	0
Regular interaction with classmates		
Very important	63	59
Somewhat important	31	39
Not very important	3	2
Not important at all	1	0
Kind of interactions		
Small group discussion board	56	26
Large class discussion board	16	15
Small group projects	26	22
Voice generated discussions	2	20
Video generated discussions	4	17

Table 2 presents the comparison of the level of satisfaction toward virtual learning between the two countries. Based on the results, both students from the country of origin agreed on the indicators set on the level of satisfaction.

In the Philippines, respondents rated the indicators saying “The objectives for this online course were provided at the beginning of this course and were clearly described” the highest with a mean of 4.19. The indicator saying “The course resources and materials for this online course were easily accessible during the course” was rated second the highest with a mean of 4.13, while the indicator saying “The course assessment methods for this online course were closely related to the course objectives” was rated with a mean of 4.10. However, the indicator with the lowest rated mean was the overall satisfaction which has 3.82.

In Thailand, the respondents consistently mean rate 3.81 on six (6) indicators namely: 1) “The course technology for this online course functioned very well”, “The course interaction with the instructor for this online course helped me reach the course objectives”, “The course resources and materials for this online course were easily accessible during the course”, “The course assessment methods for this online course were clearly described”, and “The course assessment methods for this online course were clearly described.” The second to the highest rated indicator was “The course resources and materials for this online course included a wide variety of resources and materials” which has a mean of 3.80, while the indicator saying “The course technology for this online course was helpful in reaching the course objectives” has a mean of 3.79. However, the indicator with the lowest mean rate was indicator saying, “The objectives for this online course were provided at the beginning of this course and were clearly described” which has a mean rate of 3.62.

In general, both countries rated high (3.82 mean rate) satisfaction. This means that with the current resources and instructions they have, the students from both countries are satisfied with the current systems of online learning.

Table 2

Comparison of Level of Satisfaction Towards Virtual Learning

Indicators	Philippines		Thailand	
	Mean	Description	Mean	Description
The objectives for this online course were provided at the beginning of this course and were clearly described.	4.19	Agree	3.62	Agree
The course objectives for this online course were closely related to what I was expected to learn.	4.01	Agree	3.67	Agree
The course objectives for this online course assisted with guiding my learning activities.	4.01	Agree	3.74	Agree
The course assessment methods for this online course were provided at the beginning of the course.	4.07	Agree	3.71	Agree
The course assessment methods for this online course were clearly described.	3.97	Agree	3.81	Agree
The course assessment methods for this online course included a	4.02	Agree	3.74	Agree

Indicators	Philippines		Thailand	
	Mean	Description	Mean	Description
variety of assessment methods.				
The course assessment methods for this online course were closely related to the course objectives.	4.10	Agree	3.77	Agree
The course resources and materials for this online course were easily accessible during the course.	4.13	Agree	3.81	Agree
The purpose of course resources and materials for this online course were clearly described.	4.07	Agree	3.74	Agree
The course resources and materials for this online course helped me reach the course objectives.	4.05	Agree	3.78	Agree
The course resources and materials for this online course included a wide variety of resources and materials.	3.97	Agree	3.80	Agree
The course instructor for this online course interacted with me in a timely fashion.	3.99	Agree	3.78	Agree
The course interaction with the instructor for this online course helped me reach the course objectives.	4.03	Agree	3.81	Agree
The amount of course interaction with other students for this online course was helpful in reaching the course objectives.	3.99	Agree	3.74	Agree
The course technology for this online course was readily available during the course.	4.07	Agree	3.81	Agree
The course technology for this online course functioned very well.	4.03	Agree	3.81	Agree
The course technology for this online course was helpful in reaching the course objectives.	4.06	Agree	3.79	Agree
Overall, I am satisfied with this online course.	3.82	Agree	3.82	Agree

Table 3 shows the statistical test on the significant difference in the level of satisfaction between the two countries.

As shown, there is a significant difference in the level of satisfaction between the two countries. This may imply that students from the two countries differ in terms of their respective resources, status, and culture. Well, even both of the students from the two countries, Philippines and Thailand showed the similar results in some aspects, there were still some areas which showed different results because Filipino students showed high scores in all aspects of the level of satisfaction towards virtual learning than Thai students.

Table 3*Level of Satisfaction Difference Between the Two Countries*

Countries	Mean	T-value	P-value	Remarks
Philippines	4.03	4.53	0.000	Significant
Thailand	3.76			

Note: Significant at 0.05 level of significance

Discussion

The current study explores the level of perception and satisfaction of college students from Thailand and Philippines in an online environment of learning and the significant differences of these between the two selected countries.

Majority of the Filipino students (43%) said that face-to-face sessions did not fit in their or was not an option as a reason for taking online class. In spite of that, a paper by Race (2020) revealed after conducting a survey questionnaires to students, only a little bit more than 20% of them perceived that online classes are flexible in both schedule and strategy.

Responses from most Filipino students about their professor's frequency and mode of communication, response, and feedback, specifically pertaining to 33% of the students reported that their professors respond within a few hours, 51% report that they communicate with their professors weekly, 51% communicate through video/audio message while 77% receive online learning module through same mediums, 78% and 69% find their professors response and update, respectively, are through email, 57% reported that their assignments or exams are returned within 4 - 7 days, and 54% described their professors' feedback as scored and has written overall feedback on the assignment, proved the findings of Ancho and Arrieta (2021). Their paper described the Teacher Professional Development (TPD) before and during the COVID-19 pandemic in most universities in the Philippines. TPD during COVID-19 brought more importance on orienting professors using online applications and websites as well as on utilizing online applications for more efficient performance in both teaching and feedback.

Smartphones and laptops are the two most common devices Filipino college students used in their online classes. Specifically, 63% of the Filipino students use laptop to connect, 66% deemed cutting edge technology as important, 63% saw regular interaction with classmates are also very important, and 56% of those interactions are often through small group discussion board. This data is congruent to a research by Moralista and Obucado (2020) when they investigated the perception in state universities in the Philippines. Their study describes that students from state universities also use smartphones and laptops and that smooth relay of information through education online platforms are significantly important.

The results of this paper in section about level of perception in the Philippines is also similar to that of the results by Avila et al. (2021) wherein the participants in their study believed that their university branch's online learning is moderately successful, professors were moderately helpful, and that their professors utilizes educational technology to its potential.

When it comes to the level of satisfaction in the Philippines, the students all agreed that objectives of the online course were met and were related; that online courses assisted with guiding students' learning activities; that course assessment methods were provided at the beginning, were clearly described, were including a variety of assessment methods, and were relevant; that the course resources were accessible, helped the students reach the course objectives, included a variety of resources and materials, and its purpose was clearly described; that course instructor interacted in a timely fashion and helped reach the course

objectives; and that the amount of course interaction was helpful, that the course technology was functioning very well and helpful. In addition, all students was overall satisfied with the online course.

In Thailand, the university uses two protocols: onsite learning and online learning. However, most students apply onsite learning.

Since onsite learning is more prominent at the Thai university, inquiries for the professors are answered face-to-face. If face-to-face is unavailable, the use of social media platforms via mobile phones are often the viable options to students. Because mobile phones are deemed convenient, emails are seldom used.

Communication between Thai students/respondents and their professors are accessible and uncomplicated. Thai respondents often communicate when they are issues that need to be cleared up and understood such as when the students needed to take a test prior their graduation. Specifically, communication with professors are weekly as perceived by 71% of the Thai students.

Thai respondents receives brief information concerning course management via message where the files can be saved. Daily announcements are received via Line group. Since most Thai respondents have onsite classes, phones and utilizing phone calls are more convenient for them. In online learning, subjects are often done through video presentation or audio message. This enables students communicate with the professors directly and virtually. Additionally, 42% of the students receive email responses from their professors within 24 hours. However, 47% of the students receive updates through chat messages while 35% receive professor's response through phone call. Majority of Thai students (85%) also connect to their professors through video/audio message.

Feedback regarding their assignments and outputs is deemed significant for Thai respondents. According to data, 78% of the assignments or exams are returned within 4 - 7 days and 46% receive feedback that are scored and has written overall feedback. They see it as an opportunity to develop their knowledge concerning a particular content. Most Thai professors return their student's assignments within a week since it may take some time for the professors to complete it. Thai professors utilizes audio and video messages to communicate with student

Thai students (65%) receive new content of the curriculum every week. Once published, Thai students are given new set of tasks to work ahead or new lectures for them to study for the upcoming class. Additionally, 78% of the students receive content through audio and video messages which provides 91% of the students the option to work ahead.

Since smart phones are always on hand for every Thai student, smart phones are always used to communicate with their professors as well as to update themselves about the class. To be specific, 61% uses smartphones. Thai students preferred to have an updated version of the technology which is very beneficial for them. Several students (59%) deem cutting edge technology and regular interaction with classmates as very important while 26% interacts with their classmates through small group discussion board. Hence, all in all Thai students at a university level responded that regular interaction was important for them to study.

Thai students in a class in most sections are not big. That's why small group discussion is one of the viable option students do to aid students focus well on a subject.

To summarize, Thai students mainly use smart phones to communicate with their professors as well as to attend their online classes. Professors often take a week to turn in and give feedback on their student's assignments or outputs.

The results on the level of perception in Thailand, however, is somewhat contradictory that of the results of a study by Imsa-ard (2020). When it comes to Thai student's perceptions towards their instructions, they disagree that their instructors could organize their lessons efficiently. When it comes to their perception towards willingness to online learning, they disagreed that they are willing to learn online in the future and that online learning is more comfortable. Furthermore, they agreed that they prefer face-to-face classroom rather than online learning. The study concluded with the researcher saying that the online learning did not enhance the quality of learning. In addition, the students found themselves easily distracted and demotivated.

When it comes to the level of satisfaction in Thailand, the students all agreed that objectives of the online course were met and were related; that online courses assisted with guiding students' learning activities; that course assessment methods were provided at the beginning, were clearly described, were including a variety of assessment methods, and were relevant; that the course resources were accessible, helped the students reach the course objectives, included a variety of resources and materials, and its purpose was clearly described; that course instructor interacted in a timely fashion and helped reach the course objectives; and that the amount of course interaction was helpful, that the course technology was functioning very well and helpful. In addition, all students was overall satisfied with the online course.

Due to the type of questions the instruments used, the significant difference in the level of perception between the students from the Philippines and Thailand difficult to determine. However, there is a significant difference in terms of level of satisfaction between the students from Thailand and the Philippines.

Conclusion

The COVID-19 pandemic situation forced drastic changes in the educational system on a global scale. To overcome transition, various educational institutions and organizations put an effort to design and implement online/distance education. After determining the virtual learning experience of the Thai and Filipino students and analyzing the level of satisfaction of the students from the representative schools in Philippines and Thailand, the following can be concluded.

The level of perception towards virtual learning of most of the Thai students overall fell on a satisfaction level which the Thai students were able to study online and they could adjust themselves with their virtual learning during the pandemic well. The research results revealed that most of the Thai students regularly kept in touch with their professors, got themselves updated, received some feedback concerning their lessons and assignments and responses from their professors mostly once a week, while they always connected themselves with their professors through video or audio message via their smartphones. Moreover, most of the Thai students agreed that they had received course objectives for the online courses which guided them with useful and needed information which was not interfered by virtual learning during the pandemic.

On the part of the Filipinos, it can be concluded that the level of perception towards virtual learning fell on the same satisfaction level as most Filipino students find virtual learning ideal for their schedule. Results showed that most students use the convenience of their laptop to communicate with and work on their online learning module from their

professors. Communication between Filipino students and professors were usually through email and video or audio message that continues every week. On a regular basis, Filipino students found that their professors usually reply within the day or 24 hours but turned in their assignments and exams, at most of the time, with overall feedback, within 4-7 days. In spite of that, Filipino students appreciated the option that they could work ahead and new contents of their module are available every week. Moreover, Filipino students deemed it very important to communicate with their fellow classmates most through small group discussion board. Because of the continual communication with the professors and classmates, majority of the Filipino student found cutting edge technology important in virtual learning during the pandemic.

The basis for level of perception of students between two countries has been shown in Table 1. The statistical test cannot be employed for the perception because of the type of questions that exist.

In level of satisfaction between two countries, there was a significant difference between the two countries. This might imply that students from the two countries differ in terms of their respective resources, status, and culture. Further research on this is recommended.

Recommendations

The following recommendations are forwarded for consideration in light with what has been concluded.

1. The future research could be conducted with more respondents from other Southeast Asian countries for a much better and more extensive comparison in terms of output which will provide broader insights in order to realize the level of the satisfaction of the virtual learning in the new normal as well as to be able to adapt whatever respondents from other countries practice for virtual learning as these students do their best to continue learning and growing in the so-called new normal.

2. A higher number of the respondents should be recruited for a reason of generalization of the population which will increase the validity and reliability value of the research results.

3. Future researchers could explore the factors that contributes to significant differences between the two countries in terms of level of perception and satisfaction.

4. Depending on their country of origin, module developers could utilize and consider the results from this study to help and guide them in developing modules that could better satisfy students in their online learning.

5. Students could better understand the how contents of course assessment methods, availability of course resources, the timeliness of course instructors, and frequency of course interaction can affect their satisfaction in online learning.

6. Teachers could adjust and adapt their teaching methods such as in feedback and timeliness of interaction with students to better bring more learning and satisfaction to students.

References

- 2020 Ministry of Higher Education, Science, Research and Innovation. (n.d.). Retrieved July 16, 2022, from 2020 Ministry of Higher Education, Science, Research and Innovation.: <https://www.mhesi.go.th/index.php/en/news/3619-Openclass.html>
- Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in Light of COVID-19 Pandemic. *Higher Education Studies*, 10(3), pp. 16 - 25.
- Ancho, I.V. & Arrieta, G.S. (2021). Filipino Teacher Professional Development in the New Normal. *Education and Self Development*, 16(3), 25-43
- Arinto, P. B. (2013, March). A Framework for Developing Competencies in Open and Distance Learning. *International Review of Research in Open and Distance Learning*, 14(1), 167-185.
- Auxier, B. & Anderson, M. (2020). As schools close due to the coronavirus, some U.S. students face a digital 'homework gap'. *Pew Research Center*. Retrieved from <https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/>
- Avila, E.C., Abin, G.J., Bien, G.A., Acasamoso Jr., D.M., & Arenque, D.D. (2021). Students' Perception on Online and Distance Learning and their Motivation and Learning Strategies in using Educational Technologies during COVID-19 Pandemic. *Journal of Physics: Conference Series 1933*. <https://doi.org/10.1088/1742-6596/1933/1/012130>
- Bedford, J.P., Gerry, S., Hatch, R.A., Rechner, I., Young, J.D., & Watkinson, P.J.(2020). COVID-19: towards controlling of a pandemic. *Lancet*, 395, 1015-1018. doi:10.1016/S0140-6736(20)30673-5
- Chaleoykitti, S., Artsanthia, J., Daodee, M.S. (2020). The Effect of COVID-19 Disease: Teaching and Learning in Nursing. *Journal of Health and Nursing Research*, 36(2), pp.255 - 262.
- Chaleoykitti, S., Srithumsuk, W., Jaipong, S., Pattayakorn, P., Podimuang, K. (2020). Association between Clinical Characteristics and Quality of Life in Older People with Stroke at Hospital Discharge. *Advances in Aging Research*, 9(4), pp.67-76. <https://doi.org/10.4236/aar.2020.94006>.
- Coman, C., Tiru, L.G., Mesesan-Schmitz, L., Stanciu, C., & Bularca, M.C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. *Sustainability*, 12(24). doi: 10.3390/su122410367.
- Company, S. (2021, August 26). Retrieved July 17, 2022, from Siamrath: <https://siamrath.co.th/n/274640>
- Cuaton, G. (2020). Philippines Higher Education Institutions in the time of COVID-19 Pandemic. *Revista Romaneasca pentru Educatie Multidimensionala*, 12(1Sup2), 61-70. doi:doi.org/10.18662/rrem/12.1sup2/247
- Dayagbil, F.T., Palompon, D. R., Garcia, L.L., & Olvido, M.M.J. (2021). Teaching and Learning Continuity Amid and Beyond the Pandemic. *Frontier in Education*,
- Hassan, S.U.N., Algahtani, F.D., Zrieg, R., Aldhmadi, B.K., Atta, A., Obeidat, R.M., & Kadri, A. (2021). Academic Self-Perception and Course Satisfaction among University Students Taking Virtual Classes durign the COVID-19 Pandemic in the Kingdom of Saudi Arabia (KSA). *Education Sciences*, 11, 134. doi: 10.3390/educsci11030134

- Hua, J., & Shaw, R. (2020, March 30). Corona Virus (COVID-19) “Infodemic” and Emerging Issues through a Data Lens: The Case of China. *International Journal of Environmental Research and Public Health*, 17(7). doi:10.3390/ijerph17072309
- Imsa-ard, P. (2020). Thai University Students' Perceptions towards the Abrupt Transition to 'Forced' Online Learning in the COVID-19 Situation. doi: 10.14456/edkkuj.2020.x
- Huss, J. A. (2013). The Perceptions of Students toward Online Learning at a Midwestern University: What are Students Telling Us and What Are We Doing About It? 4(2).
- Jan, S.K. (2015). The Relationship Between Academic Self-Efficacy, Computer Self-Efficacy, Prior Experience, and Satisfaction with Online Learning. *American Journal of Distance Education*, 29(1), 30 - 40. doi: 10.1080/08923647.2015.994366
- Ke, F. & Kwak, D. (2013). Constructs of Student-Centered Online Learning on Learning Satisfaction of a Diverse Online Student Body: A Structural Equation Modeling Approach. *Journal of Educational Computing Research*, 48(1), pp.97-122.
- Khadka, K. & Maharjan, S. (2017). Customer Satisfaction and Customer Loyalty. 58
- Kuo, Y.C., Walker, A.E., Belland, B.R., & Schroder., K.E.E. (2013). A predictive study of student satisfaction in online education programs. *The International Review of Research in Open Distributed Learning*, 14(1), 16-39. doi: 10.19173/irrodl.v14i1.1338
- Lata, N. & Sonkar, S.K. (2020). Impact of ICT on Learning Activities of User by Academic Library Services: A Literature Review. *Library Philosophy and Practice*,
- Landrum, B. (2020). Examining Students' Confidence to Learn Online, Self-Regulation Skills and Perception of Satisfaction and Usefulness of Online Classes, *Online Learning Journal*, 24(3), 128 - 146. doi: 10.24059/olj.v24i3.2066
- Mahmood, A., Mahmood, S.T., & Malik, A.B. (2012). A comparative study of student satisfaction level in distance learning and live classroom at higher education level. *Turkish Online Journal of Distance Education*, 13(1), pp.128-136.
- Milicevic, J., Sremcevic, N., Cosic, I., Ralevic, N., & Lazarevic, M. (2020). Online Learning Pros and Cons During COVID Pandemics: A Case Results of Students in Higher Education Institution. *DAAAM International Scientific Book 2020*, 151-170. doi:10.2507/daaam.scibook.2020.12
- Moore, J.L., Dickson-Deane, C., & Galyan, K. (2011). e-Learning, online learning, and distance learning environments: Are they the same? *The Internet and Higher Education*, 14(2), 129 - 135. doi:10.1016/j.iheduc.2010.10.001.
- Moralista, R.B. & Oducado, R.M.F (2020). Faculty Perception toward Online Education in a State College in the Philippines during the Coronavirus Disease 19 (COVID-19) Pandemic. *Universal Journal of Educational Research*, 8(10), 4736 - 4742. doi: 10.13189/ujer.2020.081044
- Tan, K.H., Chan, P.P. & Said, N-E. M. (2021). Higher Education Students' Online Instruction Perceptions: A Quality Virtual Learning Environment. *Sustainability*, 13. <https://doi.org/10.3390/su131910840>
- The Nation Thailand 2022. (n.d.). The Nation Thailand. Retrieved July 16, 2022, from <https://www.nationthailand.com/in-focus/40017510>
- O'Keefe, L., Dellinger, J. T., Mathes, J., Holland, T., & Knott, J. (2020). The State of Online Learning in the Kingdom of Saudi Arabia: A COVID-19 Impact Study for Higher Education. 253.

- Race, R.L (2020). Emergency Response Online Classes During COmmunity Quarantine: An Exploratory Research to Philippine Private Schools. *Universal Journal of Educational Research* 8(8), 3502 - 3508. doi: 10.13189/ujer.2020.080825
- Rafi, A., Varghese, P. R., & Kuttichira, P. (2020, August 19). The Pedagogical Shift During COVID-19 Pandemic: Online Medical Education, Barriers and Perceptions in Central Kerala. *Journal of Medical Education and Cirrcular Development*, 7.
- Reilly, K. (2020, June 4). *The Online Learning Divide*, 195(12/13), 38-41. TIME Magazine.
- Ritchie, H., Mathieu, E., Rodes-Guirao, L., Appel, C., Giattino C., Ortiz-Ospina, E., Hasell, J., Macdonald, B., Dattani, S., & Roser, M. (2020). Coronavirus Pandemic (COVID-19). *Our World in Data*. Retrieved from: <https://ourworldindata.org/policy-responses-COVID#citation>
- Rotas, E. & Cahapay, M. (2020). From stress to success: Exploring how Filipino students cope with remote learning amid COVID-19 pandemic. *Journal of Pedagogical Sociology and Psychology*, 3(1), 27 - 35. doi: 10.33902/JPSP.2021366608
- Rasheed, R.A., Kamsin, A., & Abdullah, N.A. (2020). Challenges in the online component of blended learning: A systematic review. *Computers & Education*, 144. <https://doi.org/10.1016/j.compedu.2019.103701>
- Schoening, E. & Wilcox, L. (2022). The Latest Updates on International Gathering and Travel Restrictions. *The Northstar Meetings Group Web site*. Retrieved from: <https://www.northstarmetingsgroup.com/coronavirus-countries-cities-reopening-COVID-19-new-cases>
- Shawaqfeh, M.S., Bekairy, A.M.A., Al-Azayzih, A., Alkatheri, A.A., Qandil, A.M., Obaidat, A.A., Harbi, S.A., & Muflih, S.M. (2020). Pharmacy Students Perceptions of Their Distance Online Learning Experience During the COVID-19 Pandemic: A Cross-Sectional Survey Study. *Journal of Medical Education and Curricular Development*, 7, 1-9. <https://doi.org/10.1177/2382120520963039>.
- Simpson, J. M. (2012). Student Perception of Quality and Satisfaction in Online Education. 132.
- Tanawongsuwan, P. (2020). Students' Satisfaction in Onsite versus Online Teaching and Learning: A Report on an Initial Sudden Mid-Semester Switch at the Graduate School of Applied Statistics, NIDA, Thailand. *Asian Journal of Research in Education and Social Sciences*, 2(3). pp.53-61.
- Tao, F. (2014). Customer Relationship amangement based on Increasing Customer Satisfaction. *International Journal of Business and Social Science*, Volume 5, Issue 5, pp. 256-263
- Thongpreecha, J. (2021). Teaching and Learning Management during COVID-19 Pandemic in a School in Bangkok, Thailand.
- Topal, A. D. (2016). Examination of University Students' Level of Satisfaction and Readiness for E-Courses and the Relationship between Them. *European Journal of Contemporary Education*, 15(1), 7-23.
- Toquero, C. D., & Talidong, K. (2021). Socio-educational Implications of Technology Use during COVID-19: A Case Study in General Santos City, Philippines. *Human Behavior & Emerging Technologies*, 3(1). doi:10.1001/hbe2.214

- Torun, E. D. (2020). Online Distance Learning in Higher Education: E-learning Readiness as a Predictor of Academic Achievement. *Open Praxis*. doi:10.5944/openpraxis.12.2.1092
- Wilcox, G., & Lock, J. (2017, April). Student Perceptions of Online Practicum: A Case Study. *International Journal in E-Learning*, 16(2), 195-168.
- World Health Organization. (2020, March 11). *WHO Director-General's remarks at the media briefing on COVID-19*. Retrieved from WHO Website: <https://www.who.int/dg/speeches/detail/who-director-general-sopening-remarks-at-the-media-briefing-on-COVID-1911-march-2020>
- World Health Organization (2021). *WHO Coronavirus (COVID-19) Dashboard*. Retrieved from <https://COVID19.who.int/info>
- Zakariah, Z., Hashim, R.A., & Musa, N. (2016). Motivation, experience and satisfaction among adult learners with fully online web-based courses. *Commonwealth Learning*.

The Triarchic Model of Psychopathy and Humor Styles: Sex Differences and the Non-moderation of Sex

Mary Ann B. Felker^{*1}, Vince Michael I. Furman¹, Ichiro S. Muramatsu¹, John Omer M. Punzalan,
Reymond Neal C. Cruz^{1,2}

¹ Department of Psychology, College of Arts and Sciences, Angeles University Foundation
Angeles City, Pampanga, Philippines

² Office of Total Quality Management, Angeles University Foundation, Angeles City, Pampanga, Philippines

*Email : felker.maryann@auf.edu.ph

Abstract

This study aimed to examine the relationship of psychopathic traits under the triarchic model (i.e. boldness, meanness, and disinhibition) with benign (i.e. self-enhancing, and affiliative) and injurious (i.e. aggressive, self-defeating) humor styles). Additionally, sex differences and the possible moderating role of sex in psychopathy and humor styles were investigated. A total of 395 Filipino university students completed study measures on psychopathy and humor styles. Our results revealed that the psychopathy traits relate to the different humor styles in different ways. In particular, all psychopathy traits are positively related to the aggressive humor style whereas only meanness and disinhibition are positively related to the self-defeating humor style. Moreover, among the psychopathy traits, only boldness is positively linked with benign humor styles. Significant small to large mean differences were also observed between males and females for the aggressive humor style and the meanness and boldness traits where males reported higher scores on those scales. Lastly, sex did not moderate the relationship between any psychopathy trait and humor style. This study underscores how variation in psychopathy traits leads to nuanced links with different humor styles.

Keywords : Humor Styles, Triarchic Model of Psychopathy, Psychopathy

1. INTRODUCTION

Psychopathy is described as a cluster of numerous behaviors that includes a total empathy deficit, limited affection for other people, and poor or insufficient feelings of guilt and anxiety (Hare, 1978). Under the Triarchic Model of Psychopathy, it is a multi-faceted condition characterized as a confluence of several personality traits reflecting varying degrees of disinhibition, as characterized by impulsiveness, hostile behavior, poor self-control, and poor emotional regulation; boldness, assertiveness, high self-confidence, and recklessness; and meanness as contempt, aggressive behavior, satisfaction from inflicting pain, and lack of empathy (Patrick et al., 2009). People exhibiting psychopathic traits are also commonly described as superficially charming (Welsh & Lenzenweger, 2021) and may often employ humor as a type of assertive self-presentation strategy to preserve and strengthen their reputation when interacting with other people (Lobbestael and Freund 2021). People's use of humor can be seen in two opposing lights, Martin (2003) narrowed the broad functions of humor into two: (1) humor that is relatively benign and benevolent and (2) humor that can be detrimental or injurious to the self or one's relationship with others. They then subdivided humor into four other dimensions: affiliative, self-enhancing, aggressive, and self-defeating. Humor that is classified as relatively benign includes the dimensions of affiliative and self-enhancing humor styles.

Previous research has observed the links between the use of various humor styles and individual differences in characteristics and personality traits. A study by Tanasić and Marinković (2016) found that personality traits predict humor styles. Their findings indicated that the best predictor of affiliative humor style is a high score on extraversion. Concerning

this, few research studies aimed to investigate the relationship between the maladaptive variants of the Big Five personality traits and humor styles. Zeigler-Hill, McCabe, & Vrabel (2016) studied this relationship using the DSM-5 pathological personality traits: antagonism, detachment, disinhibition, negative affectivity, and psychoticism. The findings of this study reported that the benign types of humor (i.e. affiliative and self-enhancing) are negatively correlated with negative affectivity, detachment, and antagonism. While the injurious types of humor (i.e. aggressive and self-defeating) had positive relationships with antagonism, disinhibition, and psychoticism. Lobbestael and Freund (2021) proposed an assumption on how people with psychopathic personality traits might be predisposed to using some humor styles. They mentioned the use of self-enhancing humor may be predisposed to psychopathic traits considering that humor can be regarded as a form of forceful self-presentation technique used by people with psychopathic traits to sustain and improve their reputation. Also, as cited from their research, both reactive and proactive aggression has been scientifically associated with psychopathy, suggesting that the use of aggressive humor may be predisposed in people with psychopathic traits (Reidy et al., 2007). With the possibility that some personalities may be more predisposed to utilize a particular style of humor, we hypothesized that certain dark personalities such as psychopathy will be more predisposed to using humor in a more harmful manner or as a means to an end.

Both psychopathy and humor styles were found to have a relationship with sex. In terms of the sex and humor styles relationship, several researchers found that males scored higher in self-defeating humor (Martin et al., 2003) and aggressive humor (Martin et.al, 2003; Wu et al. 2016) than females. However, newer research discovered that males scored higher than females for all four humor styles and not just negative humor styles. Similarly, inconsistencies also exist in terms of the sex and psychopathy relationship. Several studies found that there are significant differences between males and females in terms of psychopathy (Cale & Lilienfeld, 2002; Visser et al., 2010). However, another study found that males and females did not differ significantly in two out of the three TriPM domains of psychopathy (Sica et al., 2021). This piqued our interest and made us question how sex could affect the relationship between humor styles and psychopathy.

The current study

Previous research has explored the relationship between psychopathy and humor styles. The studies show a trend in the relationship between injurious humor and psychopathy. However, few studies have extensively examined the possible moderating effects of sex on their relationship. An analysis by Schermer (2019) of the prevalence of each humor style across sexes, was done across multiple countries and found inconsistent results which may have been subject to cultural differences. Further, research on psychopathy has demonstrated that this phenomenon is more nuanced than the unitary concept would suggest. Though the triarchic model offers a more comprehensive approach and form of measurement, little is known about the relationship between this model and the humor styles previously discussed. These gaps provide an opportunity for us to examine, within the Filipino sample, if the components that make up the triarchic model of psychopathy have a relationship with humor styles and if sex plays a moderating role. With these considered, we investigated whether meanness, boldness, and disinhibition of the triarchic psychopathy model are positively related to the four humor styles (affiliative, self-enhancing, self-defeating, and aggressive) where those high in these traits may use benign and harmful humor as a form self-presentation strategy (Lobbestael and Freund 2021). Furthermore, we also hypothesized that sex affects the direction and strength of the relationship between humor styles and psychopathy. Given that sex differences exist in both humor and psychopathy as individual

constructs, we investigated whether it can moderate the relations between psychopathy and humor styles.

Extant research concerning humor and personality traits is growing. Nonetheless, we have observed that there is less attention on the links between dark personality traits with humor. In particular, that of psychopathy within the triarchic model of psychopathy. The superiority theory of humor posits that comic amusement often comes at the expense or misfortunes of others whereby it elevates the feelings of superiority over the target of ridicule (Lintott, 2016). This theory also assumes that the affective response that is elicited from the object of amusement, which is also assumed as a negative response, adds to the feeling of superiority. This can help explain why people who are oriented toward injurious forms of humor, specifically, aggressive types, thrive on the harm that they inflict on others. Individuals who had psychopathic personality traits more consistently used injurious forms of humor by laughing at others (Proyer et al., 2012). From this, we can infer the relationship between psychopathic personalities and the use of injurious humor because of how disparaging humor increases self-perceptions of superiority and at the same time derogates the subject, both of which are commonly found in psychopathic personalities.

Nonetheless, apart from hypothesizing that people with psychopathic personality traits are more inclined to use injurious humor styles, we also hypothesized that they are also likely to use benign humor styles to maintain their charming personalities and reputation. Using affiliative and self-enhancing humor styles would enable them to strengthen their superficial charm and seemingly good public image. This is consistent with the findings of Proyer et al. (2012) wherein they found that superficial charm, as a facet of psychopathy, was correlated with the ability to laugh at oneself, which effectively increases this facet along with feelings of grandiosity. This suggests that, although individuals high in psychopathy tend to use injurious forms of humor, they also utilize other forms of humor to maintain a manipulative lifestyle that enables them to reach a certain position or goal. The findings of this study could shed light on the existing gaps and inconsistencies in the literature on the relationship between humor styles (affiliative, self-enhancing, self-defeating, and aggressive) and the triarchic model of psychopathy (boldness, meanness, and disinhibition). Upon reviewing the literature on the TriPM to measure psychopathic traits, it has been noticed that there is only very little literature that tackles the relationship of humor style and psychopathy with the use of TriPM as its measure for psychopathic traits. Thus, this study would also be a great addition to the very limited knowledge about the triarchic model of psychopathy as related to humor styles. Investigating the moderating effect of sex on these two variables may also potentially be useful for future research that would aim to study any related fields or topics. This study may be particularly useful in investigating whether people with psychopathic traits are more inclined to use any specific humor style.

2. Objectives

The general aim of the study aims to investigate the relations between the triarchic model of psychopathy, sex, and humor styles. Specifically, the study aims to:

1. Examine the relationship between the triarchic psychopathy traits (meanness, boldness, and disinhibition) and the four humor styles (self-enhancing, affiliative, self-defeating, and aggressive).
2. Determine if there are sex differences in psychopathy and humor styles, and;
3. Investigate whether sex moderates the relationship between psychopathy traits and humor styles.

3. Materials and methods

Research Design

The current study is an online cross-sectional study.

Participants

This study used the G*Power 3 Statistical Software (Faul et al., 2007) to calculate the minimum number of participants required to detect a relationship of .2 with a power of .95 in a moderation study. According to the calculation, a minimum of 266 participants is needed. However, considering that moderated regressions suffer from lower power (Aguinis et al., 2016), this sample size was aimed to increase depending on the duration of the data collection process. At the end of the data collection period, a total of 400 respondents participated but only 395 met the criteria. Out of these samples who met the criteria and whose data was analyzed, 275, or 69.6% were female, while 120, or 30.4% were male. The participants of the study who were included in the data analysis qualified in all of the three criteria which are; (1) must be Filipino, (2) age must be in the span of 18 and 25 years old, and lastly, (3) is currently an enrolled college student in any university residing in the Philippines.

Measures

The Humor Styles Questionnaire (HSQ) (Martin et al., 2003). The HSQ is a 32-item self-report measure of the tendency of which respondents to make use of benign or injurious types of humor that are either directed to themselves or other people. It produces scores for each of the humor styles which are classified into four styles: Affiliative, Aggressive, Self-Enhancing, and Self-Defeating. Studies of the psychometric properties of this scale have reported that the four HSQ subscales have presented good internal consistency (Martin et al., 2003) as well as adequate construct validity (Martin et al, 2007). In the present study, each humor style scale reported adequate internal consistency except aggressive humor style which only achieved a coefficient of 0.62. The affiliative and self-defeating humor style scale achieved coefficient alpha of 0.75 and 0.74, respectively. While the self-enhancing humor style scale got a coefficient alpha of 0.70.

Triarchic Psychopathy Measure (TriPM) (Patrick, Fowles, & Krueger, 2009). The TriPM is a self-report scale consisting of fifty-eight (58) items intended to measure psychopathy in terms of three distinct phenotypic constructs: boldness, meanness, and disinhibition. The TriPM psychopathy measure's convergent validity was tested by examining the associations between the TriPM and other psychopathy-related measures by Ustinavičiūtė (2019) and colleagues. The samples used in the study were either incarcerated or on probation juveniles and the results obtained from them supported the usefulness of the TriPM. In addition, another study was done by van Dongen et al. (2017) aimed to further investigate the TriPM's validity as well as its reliability. The results of their research provided evidence for the measure's good construct validity as well as excellent internal consistency. The three psychopathy subscales reported adequate internal consistency in the current study, with TriPM boldness obtaining a coefficient alpha of 0.74, TriPM disinhibition obtaining a coefficient of 0.78, and TriPM meanness achieving a coefficient of 0.85.

Procedure

The study was submitted to the Ethics Review Committee of the Angeles University Foundation and was approved before data collection. With the help of online platforms such as Google Forms, we were able to acquire data from our participants through online surveys. The form was comprised of the following: an informed consent, a brief demographic questionnaire containing questions regarding the participant's sex, age, nationality, college program, and university/school, the Humor Styles Questionnaire (HSQ), and the Triarchic

Psychopathy Measure (TriPM). The participants were required to tick a box to give their consent before proceeding with the questionnaires. We gathered participants by disseminating publicity materials through social media platforms such as Facebook, Messenger, and Instagram.

4. Results

For all study analyses, the Jamovi software was utilized. Table 1 reports the descriptive statistics and reliabilities (means, standard deviations, ranges, skewness, kurtosis, Cronbach's alpha coefficients) for the HSQ and TriPM variables. As shown in Table 2, Cronbach's alpha values are presented as these are used to examine the reliability or internal consistency of the scales. The Cronbach's alpha coefficients of the variables are all considered acceptable in terms of their internal consistency except for the variable HSQ Aggressive.

Table 1. Descriptive statistics of psychopathy and humor styles scales

	Mean	SD	Skewness	Kurtosis	Cronbach's α
HSQ Affiliative	40.7	6.86	-0.2050	-0.0756	0.743
HSQ Self-Enhancing	36.6	7.06	-0.2801	0.2986	0.700
HSQ Aggressive	24.5	6.87	0.3784	0.1385	0.621
HSQ Self-Defeating	30.2	8.14	-0.0720	-0.3835	0.751
TriPM Boldness	25.7	7.20	0.1111	0.3708	0.734
TriPM Disinhibition	21.7	7.90	0.3311	-0.0400	0.785
TriPM Meanness	14.3	8.40	1.0523	1.3053	0.855
TriPM Total	61.8	16.05	0.8756	1.5553	

Table 2. Correlation matrix of the psychopathy and humor styles scales

	HSQ Affiliative	HSQ Self-Enhancing	HSQ Aggressive	HSQ Self-Defeating	TriPM Boldness	TriPM Disinhibition	TriPM Meanness	TriPM Total
HSQ Affiliative	—							
HSQ Self-Enhancing	0.335***	—						
HSQ Aggressive	0.060	0.123*	—					
HSQ Self-Defeating	0.108*	0.201***	0.303***	—				
TriPM Boldness	0.298***	0.223***	0.128*	-0.061	—			
TriPM Disinhibition	-0.136**	-0.015	0.350***	0.271***	-0.228***	—		
TriPM Meanness	-0.077	0.043	0.532***	0.125*	0.239***	0.526***	—	
TriPM Total	0.027	0.115*	0.508***	0.171***	0.461***	0.666***	0.889***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Pearson correlations were computed between the study variables to determine whether relationships exist among them. Cohen's (1988) guidelines for interpreting the magnitude of correlation were used for the following interpretations. Specifically, $r=0.10$, $r=0.30$, and $r=0.50$ were suggested as small, medium, and large magnitudes, respectively. As shown in Table 2, we found out that there are several significant relationships between the TriPM and Humor Styles. The differential differences among the TriPM sub-traits may be explained per the TriPM's principle that psychopathy is not a unitary construct. Different elevations in the sub-traits may turn to different manifestations of psychopathy, hence the different outcomes.

Table 3. Results of t-tests comparing males and females on the psychopathy and humor styles scales.

	Males (N = 121)		Females (N = 275)		Statistic	p	Cohen's d
	Mean	SD	Mean	SD			
HSQ Affiliative	40.6	7.06	40.8	6.77	0.236	0.774	0.0314
HSQ Self-Enhancing	36.2	6.71	36.9	7.23	1.014	0.369	0.0980
HSQ Aggressive	26.8	7.28	23.4	6.43	-4.620	< .001	-0.4970
HSQ Self-Defeating	31.1	7.64	29.9	8.32	-1.349	0.186	-0.1446
TriPM Boldness	28.1	7.39	24.8	6.92	-4.158	< .001	-0.4670
TriPM Disinhibition	22.9	8.23	21.2	7.70	-2.009	0.05	-0.2202
TriPM Meanness	18.3	9.30	12.6	7.30	-6.725	< .001	-0.7256
TriPM Total	69.3	16.85	58.5	14.50	-6.459	< .001	-0.7085

Note: t-tests were conducted in the following order female mean – male mean

Two-tailed independent t-tests were utilized to determine whether sex differences exist among the variables. Table 3 shows the mean and standard deviation values from the Humor Styles Questionnaire and the Triarchic Model of Psychopathy for the male and female samples. Certain significant sex differences in terms of humor styles and psychopathy were observed. Large differences were particularly observed in aggressive humor, meanness, and TriPM total. This indicates that males have a significantly higher tendency to utilize the aggressive humor style and that they are also significantly higher in meanness and total TriPM scores.

Table 4. Results of moderation analyses testing for sex as a moderator in the relationship between the total and each facet of psychopathy, and each humor style.

	HSQ Affiliative			HSQ Self-enhancing			HSQ Aggressive			HSQ Self-defeating		
	B	β	p	B	β	p	B	β	P-value	B	β	p
TriPM Boldness	0.30	6.50	< .001	0.24	4.95	< .001	0.08	1.66	0.096	-0.09	-1.66	0.097
Sex	-1.24	-1.74	0.082	-1.61	-2.15	0.031	2.95	4.07	< .001	1.25	1.42	0.157
TriPM Boldness * Sex	0.09	0.89	0.371	0.05	0.49	0.623	0.14	1.45	0.147	0.20	1.66	0.097
TriPM Disinhibition	-0.12	-2.70	0.007	-0.01	-0.14	0.890	0.29	7.17	< .001	0.28	5.52	< .001
Sex	0.05	0.06	0.950	-0.72	-0.93	0.351	2.91	4.22	< .001	0.74	0.87	0.387
TriPM Disinhibition * Sex	-0.03	-0.33	0.737	-0.08	-0.84	0.403	-0.03	0.31	0.756	-0.03	-0.25	0.806
TriPM Meanness	-0.08	-1.85	0.065	0.06	1.27	0.201	0.42	11.5	< .001	0.11	2.26	0.024
Sex	0.04	0.05	0.959	-1.10	-1.43	0.152	0.92	1.45	0.147	0.59	0.67	0.504
TriPM Meanness * Sex	0.11	1.24	0.215	-0.01	-0.06	0.954	0.01	0.11	0.915	-0.02	-0.24	0.809
TriPM Total	0.01	0.56	0.578	0.06	2.90	0.004	0.21	10.9	< .001	0.08	3.22	0.001
Sex	-0.44	-0.58	0.559	-1.41	-1.85	0.065	1.04	1.62	0.105	0.21	0.24	0.814
TriPM Total * Sex	0.03	0.66	0.509	-0.02	-0.38	0.706	0.03	0.75	0.455	0.02	0.45	0.655

Multiple regression analyses were utilized to determine whether sex moderates the relationship between the variables. The Medmod module in Jamovi was used to test for moderating effects. However, despite the discovered sex differences on the individual facets, upon running multiple moderation estimates analysis for the total psychopathy and its traits to all humor scales, it was found that sex does not play a moderating role in the relationship of psychopathy and humor styles. All of the interaction terms were found to be insignificant. Thus, the relationship between psychopathy and humor is the same regardless of sex.

5. Discussion

We aimed to examine the relations of the triarchic model of psychopathy with humor styles, to see whether there are sex variations, and investigate whether sex has a moderating effect on their relationship. We found that psychopathy traits are related to different humor styles in distinct ways. We also found sex variations in both psychopathy and humor styles, but sex did not moderate their relationship.

Psychopathy and the humor styles

We found that those who report higher levels of psychopathy are likely inclined to engage in self-defeating humor style, aggressive humor style, and self-enhancing humor style. Our finding that people with high psychopathy traits are more likely to use an aggressive humor style is in line with the findings of Proyer et al. 's (2012). The results imply that highly psychopathic individuals may indulge in comic amusement and disparagement of individuals but also direct their aggressiveness as a self-presentation strategy of superficial charm. Additionally, they found that people who have elevated psychopathic traits use injurious forms of humor typically by laughing at the expense of others. People high in psychopathic traits may be predisposed to using aggressive humor because reactive and proactive aggression is associated with psychopathy (Reidy et al., 2007). An explanation as to why people who use aggressive types of humor thrive on the harm that they inflict on others may be offered by the superiority theory of humor. This theory suggests that amusement or laughter that comes at the expense or misfortunes of others elevates feelings of superiority over the subject of ridicule (Lintott, 2016). In general, we presume that people with high scores in psychopathy tend to utilize aggressive humor because of their less emphatic nature. Furthermore, laughing at another person's flaws or characteristics may boost their sense of dominance. People who scored high in total psychopathic traits are also likely to engage in self-defeating humor. These people may experience inward aggression manifested through self-deprecating humor. Self-defeating humor may also be influenced by how poorly a person with psychopathic traits controls impulses. Superficial charm or the ability to act charmingly to gain something may also be enhanced by showing other people that one is capable of disparaging the self. This is in consideration of the finding that people with elevated psychopathy traits tend to present themselves as charming and favorably as they can (Welsh & Lenzenweger, 2021). Martin (2003) also proposed that a self-defeating humor style could be utilized to improve one's social relationships at the expense and detriment of one's self. We found that high psychopathy scorers are also likely to use self-enhancing humor styles. The same discovery was found by Knight (2015) and these results in which they found that superficial charm is associated with the ability to laugh at oneself without a self-disparaging tone, a key feature of self-enhancing humor style. This suggests that individuals who have high psychopathy also tend to utilize benign forms of humor to maintain and improve their reputation.

Boldness and the humor styles

Among the facets of the TriPM, boldness was the only facet that was observed to have a unique positive relationship with both the affiliative and self-enhancing humor styles.

The results obtained regarding the relationship of boldness with affiliative humor are supported by Lobbestael and Freund's findings (2021) where they discovered that a positive relationship exists between psychopathy and affiliative humor. Using affiliative and self-enhancing humor may serve functions for persuasiveness and social assurance to enhance the perceived social value of the individual from their and others' perspective. Individuals who report high levels of boldness may use self-enhancing humor to further establish their image to maintain their self-assurance or confidence, and their social dominance. It could be viewed as a self-presentation strategy to maintain and improve their image.

Disinhibition and the humor styles

Individuals who scored high on disinhibition are inclined to use both the self-defeating humor style and an aggressive humor style. Disinhibition is described in the TriPM as having hostile behavior explains why people who are high on disinhibition tend to use aggressive humor. This hostility may be translated through using aggressive humor and laughing at another's expense. People who are high in disinhibition are also inclined to use the self-defeating humor style which could be due to their inability to regulate their harmful behavior. In the study of Cyders, Coskunpinar, and VanderVeen (2016), they found that disinhibition has a relationship with harmful behaviors toward others and the self. Our findings are also consistent with Zeigler-Hill, McCabe, & Vrabel (2016) who found that people relied more heavily on aggressive and self-defeating humor when they reported higher levels of disinhibition. On the other hand, it was also found that people who scored high on the disinhibition psychopathy trait are less inclined to use an affiliative humor style, a form of humor that is predominantly used to improve one's social relationships positively and inclusively. Having poor emotional regulation, these particular people tend to show their destructive behavior when they are experiencing emotional distress (Vahia 2013). Another possibility is that these people may be trying to make harmless jokes about their peers but end up being inappropriate and offensive due to poor self-regulation.

Meanness and the humor styles

People who scored high on meanness are likely to use both injurious humor styles. Meanness in the TriPM is defined as aggressive resource-seeking without any regard for other people (Patrick et al., 2009). Additionally, the term "mean" refers to characteristics such as a lack of empathy, disdain for and lack of close attachments with others, rebelliousness, and excitement seeking. Both injurious senses of humor are destructive, one toward others and one toward the self. A lack of empathy may drive a person to act harshly around other people, which in this regard, may be done through humorously disparaging other people or one's self. Meanness was also found to be positively associated with a self-defeating humor style. Self-defeating humor is used in an attempt to gain approval at one's own expense. A possible explanation for this is that "mean" people tend to use self-defeating humor sarcastically for other people to feel that they are way less superior to these people. Drislane and colleagues (2014) found TriPM meanness to be the strongest significant predictor of the trait, cold-heartedness, and Lobbestael and Freund (2021) found that cold-heartedness is negatively associated with self-defeating humor. This means that the results of our study posed an inconsistency in terms of the relationship between meanness and self-defeating humor. An alternative explanation may be that meanness, directed as inward aggression, leads to more self-disparaging forms of humor which are thought to be associated with different constructs like negative self-schemas leading to depression (Dozois, Martin, & Bieling, 2008). The findings that found the TriPM traits to be related to the self-defeating humor style suggest that an individual is not invulnerable to one's destructive behavior. It's intriguing to see how some psychopathy-related traits can be translated or manifested inwardly.

Sex differences in psychopathy and humor styles

Among humor styles, only the aggressive humor style was observed to have significant sex differences. Males significantly scored higher than the females from our sample in aggressive humor. Similar findings were also found where males reported higher scores in terms of aggressive humor than females (Kazarian & Martin, 2006; Martin et al., 2003). Males were also found to have higher aggression than women (Denson et al., 2018; Eliot, 2021). Furthermore, according to Wu et al. (2016), males may have less empathy for other people, making males more likely to engage in aggressive humor. Furthermore, a study that investigated humor styles across 28 countries (Schermer, 2019) found that males had higher scores than females with regards to using aggressive humor style scores in 27 out of 28 studied countries. Similarly, a study on Filipinos conducted by Torres et. al., (2020) further provides evidence that males more commonly use aggressive forms of humor. These differences are subjected to the certain societal, sociolinguistic, and environmental dimensions each sex is predisposed to experience and the fact that language is gendered. Males more commonly push the idea of social hierarchy, therefore, utilizing aggressive humor as a means to assert dominance.

With regards to the TriPM, we found that males were significantly higher than females in terms of the total score and three facets. Previous research findings have shown inconsistencies in terms of the sex differences in psychopathy. Drislane and Patrick (2017) found that meanness and boldness were higher in men while the levels of disinhibition were stable across sexes. In contrast, in Sica et al.'s (2021) study, males and females did not differ significantly in their TriPM boldness or meanness scores. These inconsistencies pose a need for further exploration of the matter. An explanation that may be further explored is the possibility that these differences may differ across samples. Nonetheless, the current study's results strengthen the evidence that meanness and boldness are significantly higher in men. This may be the case because men may have less empathy for other people (Wu et al., 2016). Males are also higher than women in terms of excitement or sensation-seeking traits (Cross et al., 2013), and the same is in terms of arrogance (Grijalva et al., 2015). Males having higher meanness traits may also be explained through a psychosocial standpoint. They may resort to portraying aggressive behavior due to societal expectations for them to have a more dominant and competitive personality. On the other hand, females are generally less self-assured than males (Casale, 2020). Males also have a stronger social dominance orientation as explained by self-stereotypes and responses to patriarchy (Schmitt & Wirth, 2009). These characteristics among men may have contributed to their high scores in boldness.

As opposed to the findings of Drislane and Patrick (2017) that levels of disinhibition are similar across sexes, we detected a small but significant difference in disinhibition. We found males to have a slightly higher score than females. We presume that this was the case because males may have a higher tendency of engaging in impulsive behaviors. However, some studies suggest that there are no absolute and definite sex differences in terms of poor impulse control or disinhibition (Mitchell & Potenza, 2015; Weinstein & Dannon, 2015), while others suggest that the detection of differences would most likely depend on the context (Weafer & de Wit, 2014). This is another interesting inconsistency that may be further explored.

Non-moderation of sex in the relationship between psychopathy and humor styles

The current study's results failed to support our hypothesis concerning the moderating effect of sex on the relationship between psychopathy traits and humor style. This means that the relationship of psychopathy traits and humor styles are not conditionally dependent on sex where the relationship is the same for males and females. Acknowledging that the effect

may be truly non-existent, we also present an alternative explanation, and possible limitation of the study design to detect moderation. An alternative explanation is that sex presents itself as a proxy variable. Sex, in our study, was operationalized in terms of assigned birth sex, when it can also account for the expression of sexual identity and certain gender-oriented characteristics. Sex, being perceived only as a physical characteristic does not showcase the underlying traits of males and females that make them different from each other. Hyde (2005) mentioned that females and males are similar to each other yet these similarities are not for all aspects, especially in psychological variables. This may imply that the non-moderation of sex in this study may have been influenced by the unaccounted gender-related characteristics present for a particular sex or for both sexes. Thus, we also acknowledge the possibility that sex does not play a moderation role in the relationship between psychopathy and humor styles. In Zeigler-Hill, McCabe, & Vrabel (2016), found that sex did not moderate the associations between pathological personality traits and humor styles. This may give us an idea that perhaps, the non-moderation of sex exists in terms of the predictors of humor similar to psychopathy and psychopathology. Although we suggest that specific gender-related variables or characteristics, rather than just sex, be explored and used as moderators. This is mainly because, upon the completion of the study, we observed the disadvantage of only investigating proxy variables such as assigned sex as moderators to the relationship among variables. Whether or not sex or gender plays a moderating role, there is a possibility that the actual moderator is among the characteristics of these sexes and not the male-female categories of sex. Thus, we suggest that future researchers look into this concern.

Implications of the study

Findings from our study shed light on how psychopathic traits within the triarchic psychopathy model are related to humor styles. We find that the relations are nuanced where trait variations in psychopathy traits relate to different humor styles in a distinct manner. Another interesting observation between humor styles and psychopathy is how people with certain psychopathic traits become victims of their own relatively destructive behavior. This was particularly observed with how some of the TriPM traits are associated with self-defeating humor. Variations among sexes were also highlighted where males, compared to females, are more likely to exhibit psychopathic traits and use more aggressive forms of humor. Given that there are findings of sex differences in the psychopathy and humor literature, our study is one of the few that aimed to investigate its moderating effects. However, despite finding sex differences in psychopathy and humor, our findings show that it does not moderate their relationship. Our study findings add to the knowledge of the interplay of psychopathy, humor, and sex differences.

Limitations and Recommendations

Several limitations were observed in the study. As mentioned above, a low number of participants may have affected the results, particularly the statistical power to detect a significant moderating effect. Thus, a larger sample size or pool of participants is recommended for future researchers who would like to conduct a similar study. We also recommend that future research should gather a more even number of respondents as ours had a larger female sample than males. Second, the administration of data gathering was done through online means, and context effects may have affected the answers. As mentioned by Latkovikj and Popovska (2020), the online collection of data has its disadvantages such as the possibility of participants having low motivation and reporting unreliable responses. A possible range restriction in TriPM may have also influenced the results, given that our sample only included college students. This suggests the possibility that the full range of the construct was not measured, as the samples could only represent the lower end of the psychopathy traits. Additionally, the HSQ facet for aggressiveness was found to have

inadequate internal reliability. The implication of this result for the aggressive humor style includes the possibility that the estimates that involve this specific subscale may be inaccurate or unreliable. Moreover, future researchers should explore how sex or gender as a variable, usually operationalized as male-female categories, roles as a proxy variable. Perhaps more gender-specific or associated characteristics closely associated with a particular sex should be explored as moderators of psychopathy and humor.

6. Conclusion

Our study findings underscore the relations of psychopathy, within the triarchic model of psychopathy, with humor styles. Generally, higher levels of psychopathy are related to a propensity for both injurious styles of humor and self-enhancing humor. However, at the trait-component level of psychopathy, we find that the relations are nuanced where trait variations in psychopathy traits relate to different humor styles in a distinct manner. Significant small to large differences between males and females were also observed where males are more likely to exhibit psychopathic traits and use aggressive humor styles. Despite these differences, we did not find any moderating effect of sex in the relationship of any psychopathy trait or humor style. Either that it does not have any moderating effect, or that our study sample is too small to detect moderation. We recommend further research to study the role of sex in humor and psychopathy by studying particular sex and gender-associated characteristics beyond that of male-female categorization since any effect of sex may simply be a proxy for these actual characteristics.

7. References

- Aguinis, H., Edwards, J. R., & Bradley, K. J. (2016). Improving our understanding of moderation and mediation in Strategic Management Research. *Organizational Research Methods*, 20(4), 665–685. <https://doi.org/10.1177/1094428115627498>
- Cale, E., & Lilienfeld, S. (2002). Sex Difference in Psychopathy and Antisocial Personality Disorder: A Review and Integration. *Clinical Psychology Review*, 22(8), 1179-1207. [https://doi.org/10.1016/S0272-7358\(01\)00125-8](https://doi.org/10.1016/S0272-7358(01)00125-8)
- Cyders, M., Coskunpinar, A., & VanderVeen, J. D. (2016). A common transdiagnostic endophenotype for maladaptive risk taking. In V. Zeigler-Hill & D. K. Marcus (Eds.), *The dark side of personality: Science and practice in social, personality, and clinical psychology*, 157–188. <https://doi.org/10.1037/14854-009>
- Denson, T. F., O’Dean, S. M., Blake, K. R., & Beames, J. R. (2018). Aggression in women: Behavior, brain and hormones. *Frontiers in Behavioral Neuroscience*, 12. <https://doi.org/10.3389/fnbeh.2018.00081>
- Dozois, D. J., Martin, R. A., & Bieling, P. J. (2008). Early maladaptive schemas and adaptive/maladaptive styles of humor. *Cognitive Therapy and Research*, 33(6), 585–596. <https://doi.org/10.1007/s10608-008-9223-9>
- Drislane, L. E., Patrick, C. J., & Arsal, G. (2014). Clarifying the content coverage of differing psychopathy inventories through reference to the triarchic psychopathy measure. *Psychological assessment*, 26(2), 350–362. <https://doi.org/10.1037/a0035152>
- Eliot, L. (2021). Brain development and physical aggression. *Current Anthropology*, 62(S23). <https://doi.org/10.1086/711705>

- Grijalva, E., Newman, D. A., Tay, L., Donnellan, M. B., Harms, P. D., Robins, R. W., & Yan, T. (2015). Gender differences in narcissism: a meta-analytic review. *Psychological bulletin*, *141*(2), 261–310. <https://doi.org/10.1037/a0038231>
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Hare, R. D. (1978). *Psychopathy and violence*. Office of Justice Programs. Retrieved April 28, 2022, from <https://www.ojp.gov/ncjrs/virtual-library/abstracts/psychopathy-and-violence>
- Hyde, J. S. (2005). The Gender Similarities Hypothesis. *American Psychologist*, *60*(6), 582–592. <https://doi.org/10.1037/0003-066X.60.6.581>
- Kazarian, S., & Martin, A. (2006). Humor Styles, Culture-Related Personality, Well-Being, and Family Adjustment Among Armenians in Lebanon. *International Journal of Humour Research*, *19*(4), 405–423. <https://doi.org/10.1515/HUMOR.2006.020>
- Knight, J. E. (2015). The Role of Social Exclusion as a Mediator of Humor Style Among Dark Triad Personalities. *OhioLINK Electronic Theses and Dissertations Center*. http://rave.ohiolink.edu/etdc/view?acc_num=marietta1450361397
- Latkovikj, M. & Popovska M. (2020). Online Research About Online Research: Advantages and Disadvantages. *E-methodology*, *6*(6), 44–56. <https://doi.org/10.15503/emet2019.44.56>
- Lintott, S. (2016). Superiority in humor theory. *The Journal of Aesthetics and Art Criticism*, *74*(4), 347–358. <https://doi.org/10.1111/jaac.12321>
- Lobbestael, J. & Freund, V. (2021). Humor in Dark Personalities: An Empirical Study on the Link Between Four Humor Styles and the Distinct Subfactors of Psychopathy and Narcissism. *Frontiers in Psychology*, *12*. <https://doi.org/10.3389/fpsyg.2021.548450>
- Martin, R., Puhlik-Doris, P., Larsen, G., Gray, J., & Weir, K. (2003). Individual Differences in Uses of Humor and Their Relation to Psychological Well-Being: Development of the Humor Styles Questionnaire. *Journal of Research in Personality*, *37*(1), 48–75. [https://doi.org/10.1016/S0092-6566\(02\)00534-2](https://doi.org/10.1016/S0092-6566(02)00534-2)
- Mitchell, M. R., & Potenza, M. N. (2015). Importance of sex differences in impulse control and addictions. *Frontiers in psychiatry*, *6*, 24. <https://doi.org/10.3389/fpsyg.2015.00024>
- Patrick, C., Fowles, D., & Krueger, R. (2009). Triarchic conceptualization of psychopathy: Developmental origins of disinhibition, boldness, and meanness. *Development and Psychopathology*, *21*(3), 913–938. doi:10.1017/S0954579409000492
- Proyer, R. T., Flisch, R., Tschupp, S., Platt, T., & Ruch, W. (2012). How does psychopathy relate to humor and laughter? dispositions toward ridicule and being laughed at, the sense of humor, and psychopathic personality traits. *International Journal of Law and Psychiatry*, *35*(4), 263–268. <https://doi.org/10.1016/j.ijlp.2012.04.007>
- Reidy, D. E., Zeichner, A., Miller, J. D., & Martinez, M. A. (2007). Psychopathy and aggression: Examining the role of psychopathy factors in predicting laboratory aggression under hostile and instrumental conditions. *Journal of Research in Personality*, *41*(6), 1244–1251. <https://doi.org/10.1016/j.jrp.2007.03.001>

- Schermer, J., Rogoza, R., Kwiatkowska, M., Kowalski, C., Aquino, S., Ardi, R., ... Krammer, G. (2019). Humor styles across 28 countries. *Current Psychology*.
<https://doi.org/10.1007/s12144-019-00552-y>.
- Sica, C., Perkins, E. R., Joyner, K. J., Caudek, C., Bottesi, G., Caruso, M., Giulini, P., Ghisi, M., & Patrick, C. J. (2021). Testing for sex differences in the nomological network of the TRIARCHIC model of psychopathy in incarcerated individuals. *Journal of Psychopathology and Behavioral Assessment*, *43*(4), 960–976.
<https://doi.org/10.1007/s10862-021-09897-w>
- Tanasić, J. & Marinković, N. (2016). Personality traits as a predictor of humor styles: A developmental approach. *Individual and Environment, International Thematic Procedia*. *1*. 97-1010.
- Torres-Marín, J., Navarro-Carrillo, G., & Carretero-Dios, H. (2018). Is the use of humor associated with anger management? the assessment of individual differences in humor styles in Spain. *Personality and Individual Differences*, *120*, 193–201.
<https://doi.org/10.1016/j.paid.2017.08.040>
- Ustinavičiūtė, L., Laurinavičius, A., Klimukienė, V., Laurinaitytė, I., & Baltrūnas, M. (2019). Examining the Convergent Validity of the Triarchic Psychopathy Measure Using a Sample of Incarcerated and on Probation Lithuanian Juveniles. *Behavioral sciences (Basel, Switzerland)*, *9*(12), 156. <https://doi.org/10.3390/bs9120156>
- Vahia, V. (2013). Diagnostic and Statistical Manual of Mental Disorders 5; A Quick Glance. *Indian Journal of Psychology*, *55*(3), 220-223. DOI: 10.4103/0019-5545.117131
- Van Dongen, J., Drislane, L. E., Nijman, H., Soe-Agnie, S. E., & van Marle, H. (2017). Further Evidence for Reliability and Validity of the Triarchic Psychopathy Measure in a Forensic Sample and a Community Sample. *Journal of psychopathology and behavioral assessment*, *39*(1), 58–66. <https://doi.org/10.1007/s10862-016-9567-5>
- Visser, B. A., Pozzebon, J. A., Bogaert, A. F., & Ashton, M. C. (2010). Psychopathy, sexual behavior, and esteem: It's different for girls. *Personality and Individual Differences*, *48*(7), 833–838. <https://doi.org/10.1016/j.paid.2010.02.008>
- Weafer, J., & de Wit, H. (2014). Sex differences in impulsive action and impulsive choice. *Addictive behaviors*, *39*(11), 1573–1579.
<https://doi.org/10.1016/j.addbeh.2013.10.033>
- Weinstein, A., Dannon, P. Is Impulsivity a Male Trait Rather than Female Trait? Exploring the Sex Difference in Impulsivity. *Curr Behav Neurosci Rep* *2*, 9–14 (2015).
<https://doi.org/10.1007/s40473-015-0031-8>
- Welsh, E.-C. O., & Lenzenweger, M. F. (2021). Psychopathy, charisma, and success: A moderation modeling approach to successful psychopathy. *Journal of Research in Personality*, *95*, 104146. <https://doi.org/10.1016/j.jrp.2021.104146>
- Wu, C.-L., Lin, H.-Y., & Chen, H.-C. (2016). Gender differences in humour styles of young adolescents: Empathy as a mediator. *Personality and Individual Differences*, *99*, 139–143. <https://doi.org/10.1016/j.paid.2016.05.018>
- Zeigler-Hill, V., McCabe, G., & Vrabel, J. (2016). The Dark Side of Humor: DSM-5 Pathological Personality Traits and Humor Styles. *Europe's Journal of Psychology*. *12*. 363-376. <https://doi.org/10.5964/ejop.v12i3.1109>.

High School Teachers' Technical Difficulties Amidst COVID-19 Pandemic

*Andre Brian D. Azarcon^{*1}, Renith S. Guanzon², Maria Christina F. Bagundol²

¹Lopez Jaena National High School

²STI West Negros University, Philippines

*Email : dreibrian0916@gmail.com

Abstract

This study analyzed the technical difficulties of public high school teachers during the pandemic in a secondary school in Murcia, Negros Occidental. It ascertained the technical difficulties, specifically in Microsoft Office programs, multimedia platforms, and e-learning resources. Further, the researchers determined significant differences between the levels of technical difficulties when these teachers were grouped according to sex, age, civil status, family income, and educational attainment. The instrument used to collect the data was a 45-item self-made questionnaire that has passed the rigorous tests of validity and reliability and has obtained a very high validity and a reliability index of excellent. Items were evenly distributed in the three areas or constructs in focus.

The ensuing analysis revealed a low level of teachers' technical difficulty in Microsoft office programs but was found moderate in multimedia platforms and e-learning resources. Subsequently, the Mann-Whitney U tests revealed that a significant difference was only evident in e-learning resources when teachers were grouped according to age. Based on the results of the study, a proposed intervention plan was formulated to lessen the technical difficulties of these teachers and to further their learning in technology.

Keywords : Philippine education in the pandemic, technical difficulty, Microsoft Office, multimedia platforms, e-learning resources

1. Introduction

The COVID-19 pandemic brought changes and disruptions in the history of education, affecting almost 1.6 billion learners in more than 190 countries (United Nations, 2022). The world continues to struggle with the virus; however, technological privileges keep nations more resilient because they better cope with the challenges, especially in their governance, health, and educational sectors (Jiang & Ryan, 2020).

An Indonesian researcher named David Sulistiawan Aditya (2021) found that the teachers perceived they were psychologically, technologically, and pedagogically ready for digital teaching and learning in the midst of Covid-19 pandemic. The same researcher also discovered that the digital learning problems were mostly prevalent in rural areas. Still another problem he found was the different levels of students' affordance of technology that mainly led to digital learning inequality. Back home, this paper aimed to dwell more into minute classroom challenges in Negros Island brought about by the heavy demands of Microsoft Office applications, e-Learning, and other multimedia platforms with the aim of finding creative means to solve the problem.

Moreover, in a report published by RAND Company, unequal internet connection has been the biggest concern of the educators as it hurts the ability to learn the students in a virtual education setting (Klein, 2020). Thailand encountered the same situation where universities were not ready for online learning. In contrast, teachers need to acquire and learn how to utilize the different e-learning tools independently (Sumabut & Tuamsuk, 2021).

Specific to the Philippine setting, the country also acknowledges the importance of technology in education that it pursues paradigm-shifting from the book age to the computer

age. As added, the era of digitalization and technology is the key to "education during the trying times" (Enicola, 2021).

However, Philippine remote schools still experience a scarcity of technological resources, giving them extreme challenges in pursuing quality education (Orale & Quejada, 2018). As Figueroa, et al. (2016) asserted, far-flung schools, like those in Samar, have always been deprived of much-needed resources like technology, making them far behind in learning 21st-century key skills. On the other hand, Nick Hutton, regional director of global software company D2L, said that a successful teaching-learning process in a remote situation also means optimizing faculty technical skills. Teachers should also be prepared to be technologically equipped (Lacsamana, 2021).

The COVID-19 pandemic has presented unprecedented challenges in various sectors, with the education system being significantly affected. As schools transitioned to remote learning, high school teachers found themselves grappling with a myriad of technical difficulties that hindered their ability to effectively deliver education. Understanding the extent of these challenges and their impact on teachers is crucial as it sheds light on the broader implications for students' learning outcomes and the overall educational landscape. By examining the high school teachers' technical difficulties amidst the COVID-19 pandemic, we can gain valuable insights into the specific obstacles they faced, and the long-term implications for educational practices. This study not only highlights the difficulties of educators but also emphasizes the urgent need for adequate support systems and resources to ensure the continuity of quality education in times of crisis. Hence, exploring this topic is therefore not only relevant but essential in paving the way for future preparedness and resilience in the face of unforeseen challenges.

2. Objectives

This study aimed to determine the level of technical difficulties encountered by school teachers in times of the educational crisis, the COVID-19 pandemic, in a selected public secondary high school in Murcia, Division of Negros Occidental, Philippines, during the School Year 2021–2022. The study's findings served as a foundation for developing a comprehensive intervention plan aimed at empowering teachers by addressing identified gaps and enhancing their skill sets.

Specifically, the study sought answers to the following questions:

1. What is the profile of respondents in terms of the following variables:
 - a. Age
 - b. Sex
 - c. Civil Status
 - d. Educational Attainment
 - e. Family Income
2. What is the level of technical difficulties encountered by high school teachers in terms of the following areas:
 - a. Microsoft office application;
 - b. Multimedia Platforms; and
 - c. e-Learning Resources;
3. Is there a significant difference in the level of technical difficulties encountered by high school teachers when grouped and compared according to the aforementioned variables?
4. Based on the study's results, what intervention plan can be formulated?

3. Theoretical Framework

One relevant theory that can help understand the high school teachers' technical difficulties amidst the COVID-19 pandemic is the Technology Acceptance Model (TAM). Developed by Fred Davis in 1989, the TAM explores the factors influencing individuals' acceptance and adoption of technology.

In the context of high school teachers' technical difficulties during the pandemic, the TAM can provide valuable insights into their experiences and reactions to the sudden shift to remote learning. According to the TAM, individuals' acceptance and usage of technology depend on two main factors: perceived usefulness and perceived ease of use (Venkatesh, 2000).

Perceived usefulness, according to Venkatesh (2000), refers to the degree to which individuals believe that using a particular technology will enhance their job performance or make tasks easier. In the case of high school teachers, their perception of how technology can facilitate remote teaching, engage students, and maintain effective communication would impact their acceptance and willingness to overcome technical difficulties.

Perceived ease of use, on the other hand, refers to the degree to which individuals believe that using a particular technology is effortless and user-friendly. Teachers' comfort with technology and their ability to navigate online platforms, troubleshoot technical issues, and adapt to new tools will influence their experience with remote teaching and their ability to overcome technical difficulties (Venkatesh, 2000).

By applying the TAM to the context of high school teachers' technical difficulties, researchers and policymakers can gain a deeper understanding of the factors influencing teachers' acceptance and adoption of technology during the pandemic. This knowledge can guide the development of targeted interventions, training programs, and support systems to address technical challenges and enhance teachers' technological proficiency, ultimately improving the quality of remote education delivery.

4. Conceptual Framework

This study sought to determine the level of technical difficulties encountered by school teachers in times of the COVID-19 pandemic during the School Year 2021 - 2022. Three areas were considered which are Microsoft office application; Multimedia Platforms; and e-Learning Resources.

Microsoft Office applications encompass a crucial area of high school teachers' technical difficulties amidst the COVID-19 pandemic. These applications, including popular tools like Microsoft Word, Excel, PowerPoint, and Teams, have become essential for remote teaching and communication (Shelly et al, 2019).

One significant challenge teachers faced was the sudden transition from in-person classrooms to online environments, requiring them to quickly adapt to using Microsoft Office applications for various educational purposes. Inexperienced teachers or those with limited technological proficiency encountered difficulties in effectively utilizing these tools to deliver instructional content, create engaging presentations, manage virtual classrooms, and provide timely feedback to students.

Teachers often encountered technical issues such as software compatibility problems, connectivity issues, and difficulties in navigating the features and functions of Microsoft Office applications. These challenges hindered their ability to create and share educational

materials, deliver engaging virtual lessons, and efficiently manage students' assignments and assessments.

Multimedia platforms constitute a significant area of high school teachers' technical difficulties amidst the COVID-19 pandemic. These platforms, which encompass various tools and applications for video conferencing, content creation, and virtual collaboration, have become integral for remote teaching and learning (Steinmetz & Nahrstedt, 2010).

One major challenge faced by teachers was the rapid adaptation to utilizing multimedia platforms effectively. Many educators lacked prior experience in leveraging these tools for instructional purposes, leading to difficulties in navigating their features, managing online classrooms, and delivering engaging content.

Technical issues often arose while using multimedia platforms, such as connectivity problems, audio or video glitches, and compatibility issues with different devices and operating systems. These challenges hindered teachers' ability to deliver seamless online lessons, engage students in interactive discussions, and ensure reliable communication.

The e-learning resources represent a significant area of high school teachers' technical difficulties amidst the COVID-19 pandemic. These resources encompass digital tools, online platforms, and educational materials used for remote teaching and learning (Moore & Kearsley, 2011).

One prominent challenge faced by teachers was the selection and adaptation of appropriate e-learning resources for their curriculum. Identifying high-quality resources aligned with the curriculum objectives and student needs required careful evaluation and exploration. Teachers had to invest time and effort in searching, vetting, and customizing e-learning resources to ensure their relevance and effectiveness in the remote learning environment.

Technical issues often emerged when using e-learning resources, including difficulties in accessing or navigating online platforms, software compatibility problems, and troubleshooting errors. Teachers had to familiarize themselves with various platforms and technologies to integrate e-learning resources seamlessly into their virtual classrooms. This process demanded technical skills, troubleshooting abilities, and adaptability to new digital tools and interfaces.

The availability and accessibility of e-learning resources also posed challenges. Not all students had equitable access to technology devices or reliable internet connections, limiting their ability to fully engage with the resources provided by teachers. Teachers had to find alternative solutions and adapt their instructional strategies to accommodate students with limited access to e-learning resources, ensuring inclusivity and equity in remote learning.

Furthermore, teachers encountered difficulties in designing engaging and interactive activities using e-learning resources. Adapting traditional teaching methods to a digital format required creativity and a deep understanding of the available e-learning tools. Teachers had to explore features such as interactive quizzes, multimedia presentations, and virtual simulations to create interactive and immersive learning experiences for their students.

The level of technical difficulties encountered by high school teachers was measured in a continuum of a 5-part scale ranging from 5 as "very high level," 4 as "high level," 3 as "moderate level," 2 as "low level" to 1 as the lowest or "very low level."

5. Materials and methods

This study utilized a descriptive research design. This aims to accurately and systematically describe a population, situation, or phenomenon and can use various research methods to investigate one or more variables (McCombes, 2019). Specifically, this design explores a population's characteristics; identifies problems within a unit, an organization, or a population; or looks into variations in characteristics or practice between groups (Siedlecki, 2019).

As applied in this study, the descriptive research design determined the difficulties of public high school teachers in terms of Microsoft programs, multimedia platforms, and e-learning resources when they were grouped according to the different variables. These difficulties were identified, analyzed, interpreted, and similarities and differences were explained in the levels of technical difficulties across the other groups of respondents.

The study was conducted in one national high school in the Municipality of Murcia, District of Murcia II, Division of Negros Occidental. The school is situated on a 12-hectare farmland at Barangay Lopez Jaena, 15 minutes away from the municipality proper and 30 to 45 minutes away from Bacolod City. It caters to 4,000 learners from junior high school to senior high school. In addition, the school serves as a catchment for students coming from mountainous areas of Don Salvador Benedicto, Minoyan, Pandanon, and Canlandog, respectively. It houses 101 teaching personnel and 14 non-teaching personnel. This secondary school offers special programs like STE, SPA, and SPS. Recently, the school was awarded a three (3) star school in School-Based Management-Wash in Schools (SBM-Wins) and represented the Division of Negros Occidental in the regional competition. Lastly, the school is also categorized as level three or in the advanced level of practice for School-Based Management (SBM).

The respondents of this study were 88 secondary school teachers out of 113 in one national high school in the municipality of Murcia, Negros Occidental, during the school year 2021-2022. To ensure that all eight departments in the school had a proportional number of samples, the researchers employed a stratified random sampling technique. Thomas (2020) stated that in stratified random sampling, researchers should divide a population into homogeneous subpopulations called strata, and each stratum is then sampled. Table 1 presents the distribution of respondents by the department.

Table 1 *Distribution of the Respondents*

Departments	Population (N)	Sample (n)	Percentage (%)
A	17	13	15
B	17	13	15
C	16	13	14.2
D	13	10	11.5
E	12	9	10.6
F	16	13	14.2
G	15	12	13.3
H	7	5	6.2
Total	113	88	100.0

The research instrument has been validated using the criteria set by Good and Scates (Oducado, 2020). Three expert validators rated it and acquired an average of 4.87, interpreted as excellent. In identifying the internal consistency, Cronbach's alpha was utilized (Glen, 2022). The questionnaire has garnered a value of 0.979, interpreted as excellent, which is far greater than the minimum alpha value of 0.70 for the questionnaire to be reliable and consistent enough to be used for the actual data collection.

Prior approval was sought from concerned school authorities before the conduct of pilot-testing of the survey questionnaire and administering the same to its target respondents. The latter were oriented to the purpose, scope, and voluntary nature of the study. Health protocols were duly observed throughout the data-collection process. Finally, the data gathered were tabulated, analyzed, and interpreted using the appropriate statistical tools.

The respondents answered a four-part researchers-made questionnaire, which underwent validity and reliability testing before its administration. The descriptive and comparative analytical schemes were employed to reveal the dynamics involved in the processes. Frequency count, percentage, mean, and Mann-Whitney U test were used to treat the descriptive and inferential data, respectively.

To analyze the data and address the different objectives, the researchers have employed the descriptive and comparative analytical schemes and adhered to the following statistical tools: frequency count and percentage to determine the profile of respondents, mean to establish the level of technical difficulties in terms of Microsoft programs, multimedia platforms, and e-learning resources, and Mann Whitney U test to find out significant differences when respondents are grouped according to the aforementioned variables. For the levels of technical difficulties, mean scores were interpreted as follows:

Mean Score Range	Verbal Interpretation
4.50-5.00	Very High Level
3.50-4.49	High Level
2.50-3.49	Moderate Level
1.50-2.49	Low Level
1.00-1.49	Very Low Level

6. Results and Discussion

Respondents' Profile

The respondents' profile is summarized in Table 2, bringing the spotlight on age, sex, civil status, educational attainment, and family income.

Table 2 *Profile of the Respondents*

Variables	Categories	Frequency	Percentage
Age	Younger (below 35 years old)	49	55.7
	Older (35 years old and above)	39	44.3
Sex	Male	35	39.8
	Female	53	60.2
Civil Status	Single	33	37.5
	Married	55	62.5
Highest Educational Attainment	Lower (Bachelor's Degree)	62	70.5
	Higher (Masters and Doctorate Degrees)	26	29.5

Average Family Monthly Income	Lower (below P28,000)	57	64.8
	Higher (P28,000 and above)	31	35.2
	Total	88	100

Table 2 shows the respondents' demographic profile when grouped by age, sex, civil status, educational attainment, and family income. Based on age groupings, 55.70% are younger, whose ages are below 35 years old, while 44.30% are older with ages from 35 years old and above. When grouped according to sex, 35 were males, while 53 were females. In terms of civil status, 37.50% are single, while 62.50% are married. When grouped by educational attainment, 62 had lower and 26 had higher educational attainment. Finally, when grouped according to family income, 64.80% have lower income while 35.20% have higher income.

Teachers' Level of Technical Difficulties in Microsoft Programs

Table 3 shows the level of technical difficulties encountered by teachers according to the area of Microsoft Office applications. Results show that the respondents have a "low" technical difficulty level of the respondents on Microsoft Office applications (M=2.44). The item that obtained the highest mean score is "entering data on my created spreadsheet in Microsoft Excel" (M=2.63), while the item that scored the lowest is "setting the size and orientation of my slides in MS PowerPoint" and "inserting tables, shapes, and images in MS Word" (M=2.26).

The high difficulty mean score on the utilization of Microsoft Excel is supported by the idea that a big portion of the population, though not the majority, already belongs to an older group. Hence, many of them may be struggling with transferring data from papers into their computers due to eyesight difficulties. On the other hand, using MS PowerPoint and Word functions, obtaining low mean scores implies that the teachers have already been used to manipulating the functions of MS PowerPoint and Word since they always deal with them in making their reports, lesson plans, and visual aids.

These results support the study of Sajid et al. (2018), asserting that teachers were competent in using Microsoft programs, especially the word document; thus, their difficulty in manipulating such programs is low. However, this debunks the findings of Ogwu (2016), asserting that teachers poorly utilize Microsoft packages for teaching and learning, resulting in them becoming less competent in such Microsoft programs.

Table 3 Teachers' Level of Technical Difficulties based on Microsoft Office Application

Items	Mean	Interpretation
As a teacher, I have difficulties in...		
1. creating text documents in Microsoft Word.	2.38	Low Level
2. inserting tables, shapes, and images in Microsoft Word.	2.26	Low Level
3. changing the page layout (like margins, orientation, columns, indentation, and spacing) of my text document in Microsoft Word.	2.47	Low Level
4. adding citation, footnote, table of contents, caption, and bibliography for my references in Microsoft Word.	2.49	Low Level
5. navigating the review tab to check for the spelling, language, translation, and word count of my text document in Microsoft Word.	2.52	Moderate Level
6. creating workbooks or spreadsheets in Microsoft Excel.	2.48	Low Level
7. entering data in my created Spreadsheet in Microsoft Excel.	2.63	Moderate Level
8. formatting cells like text wrapping, merging cells, adding decimal places, and changing currency in Microsoft Excel.	2.5	Moderate Level
9. performing mathematical, statistical, and logical operations in the	2.61	Moderate Level

Microsoft Office Excel program.

10. creating graphs using excel to better present the totality of data.	2.45	Low Level
11. creating and opening existing presentations in Microsoft PowerPoint.	2.42	Low Level
12. setting the size and orientation of my slides in Microsoft PowerPoint.	2.26	Low Level
13. adding shapes, images, sounds, and videos to my presentation in Microsoft PowerPoint.	2.35	Low Level
14. adding customized effects, transitions, and animations to my presentation in Microsoft PowerPoint.	2.36	Low Level
15. presenting and navigating my presentation in Microsoft PowerPoint.	2.38	Low Level
Overall Mean	2.44	Low Level

Teachers' Level of Technical Difficulties in Multi-media Platforms

Table 4 shows the level of technical difficulties that secondary public school teachers encounter in the new normal of multimedia platforms. Results show that they have a "moderate" level of technical difficulties in the aforementioned area (M= 2.52). The item with the highest mean score is "connecting to the internet due to connectivity issues" (M=2.88) because the school where the respondents teach is located in a rural area with insufficient cell sites making connectivity a problem. Also, many teachers reside in remote areas and lack load allowances, making internet connection a luxury for them.

On the other hand, "setting the printer's resolution and quality from high to draft for faster printing" got the least mean score (M=2.22). This is since teachers are already so used to using their printers since they print hundreds of modules almost every week since distant learning education took place.

The results confirm Konig et al. (2020) findings that teachers are faced with significant challenges in adapting to distant teaching-learning and maintaining at least a minimum amount of communication with their students.

Table 4 Teachers' Level of Technical Difficulties according to Multi-Media Platforms

Items	Mean	Interpretation
As a teacher, I have difficulties in...		
1. adding or inviting students to join my class in Google Classroom, Microsoft Teams, Zoom, etc.	2.6	Moderate Level
2. holding virtual classes on Facebook, Google Meet, Microsoft Teams, and/or Zoom.	2.32	Low Level
3. creating or modifying assignments in Google Classroom, Microsoft Teams, and/or Schoology.	2.38	Low Level
4. creating online forms and assessments that can be utilized by my students and colleagues.	2.56	Moderate Level
5. setting a virtual meeting and disseminate the link so that students/colleagues can join.	2.56	Moderate Level
6. creating a resource page for learning materials and instructions for the whole class in Google Classroom, Microsoft Teams, and/or Schoology.	2.58	Moderate Level
7. screen sharing for my presentation during virtual classes on Facebook, Google Meet, Microsoft Teams, and/or Zoom.	2.27	Low Level
8. printing learning activity sheets and modules from .pdf, and/or .docx file format.	2.36	Low Level
9. printing learning activity sheets and modules in different page handling (booklet, multiple, poster).	2.56	Moderate Level
10. setting the printer's resolution and/or quality from high to draft for faster printing.	2.22	Low Level
11. troubleshooting my printer.	2.67	Moderate Level
12. transferring files and digital-print modules through USB, Share-it, and/or Google drive.	2.39	Low Level

13. connecting to the internet due to connectivity issues.	2.88	Moderate Level
14. performing my teaching duties since I don't have my own laptop and/or computer.	2.67	Moderate Level
15. printing my modules and/or learner's answer sheets since I don't have my own printer.	2.82	Moderate Level
Overall Mean	2.52	Moderate Level

Teachers' Level of Technical Difficulties in E-learning Resources

Table 5 shows the level of technical difficulties encountered by teachers according to the area of E-learning resources. Respondents have a "moderate" technical difficulty level in the aforementioned area (M=2.81). The results show that respondents have the lowest mean on "downloading educational videos from YouTube" (M=2.57). In contrast, the highest mean score is "utilizing search engines because of the poor navigation set-up; thus, not user-friendly" (M=2.95).

This implies that teachers don't get the chance to fully maximize the use of online resources and search engines as brought about by their poor connectivity since most reside in rural areas. Therefore, their lack of access to e-learning resources is a barrier to their familiarity and utilization, leading them to have a "moderate" technical difficulty level.

These results correspond to that of Wahyuningsih et al. (2021), affirming that teachers are not well equipped in terms of utilizing e-learning resources which may be rooted in their lack of technical ability in the use of devices and tools in creating digital learning resources, not being strategic in terms of organizing materials to be applied to learning resources, and the lack of skills in managing digital learning resources. Teachers are therefore advised by the latter researcher to work with educational technologists for them to be guided by the different know-hows.

Table 5 Teachers' Level of Technical Difficulties according to e-Learning Resources

Items	Mean	Interpretation
As a teacher, I have difficulties in...		
1. accessing search engines (like google and <i>bing</i>) due to slow internet connectivity.	2.76	Moderate Level
2. searching the internet because my device/s lag/s whenever I use the browser.	2.92	Moderate Level
3. downloading educational videos from YouTube.	2.57	Moderate Level
4. shortening long URLs.	2.8	Moderate Level
5. accessing e-learning sites like Scribd, Coursera, Khan Academy, and or TedEd due to not having premium subscriptions.	2.73	Moderate Level
6. updating and optimizing my browsers regularly.	2.93	Moderate Level
7. searching websites since they offer a poor user experience on smartphones and tablets and are slow to load on mobile devices.	2.75	Moderate Level
8. utilizing search engines because of the poor navigation set-up, thus, not user-friendly.	2.95	Moderate Level
9. utilizing images on the web because they are not search-friendly.	2.76	Moderate Level
10. searching the internet because the webpages load at a slow pace.	2.85	Moderate Level
11. searching the web because of poor internet searching strategies.	2.86	Moderate Level
12. I searched the web because e-learning applications are unavailable on my device/s.	2.75	Moderate Level
13. searching the web because I don't have an updated antivirus to protect my computer from browsing or downloading from internet sites.	2.84	Moderate Level
14. searching the web because there are too many hits, I am not sure which is to choose best.	2.89	Moderate Level
15. utilizing Open Educational Resources like DepEd Commons due to log-in issues.	2.82	Moderate Level
Overall Mean	2.81	Moderate Level

Difference in the Level of Technical Difficulties of Public School Teachers in the New Normal based on Microsoft Programs and Groupings by Selected Variables

Mann-Whitney U test was used in Table 6 to determine the significant difference in the level of technical difficulties encountered by teachers in the area of Microsoft Office applications when respondents are grouped according to the variables. Results show that there is no significant difference in the level of technical difficulties in the new normal in the area of Microsoft Office applications when respondents are grouped according to age [U=932.000, p=0.843], sex [U=883.50, p=0.707], civil status [U=827.000, p=0.487], highest educational attainment [U=725.000, p=0.458], and average family monthly income [U=859.50, p=0.834].

Therefore, the results accepted the null hypothesis that the level of technical difficulties encountered by teachers in the new normal in the area of Microsoft Office applications is not significant when respondents are grouped according to their demographic profiles.

Results are parallel to the study of Mahdi & Al-Dera (2013), affirming that there is no significant difference in the level of difficulty in the use of ICT, particularly of commonly used programs like that of Microsoft Office, when respondents are grouped according to age and sex. Likewise, the above difficulty level is not significant even though teacher respondents are grouped according to their civil status, average monthly family income, and highest educational attainment (Gelacio & Comighud, 2020). This implies that respondents, regardless of their age, sex, civil status, highest educational attainment, and average monthly family income, have just the same or common answers on items that measured their difficulty level in Microsoft Office applications.

Table 6 *Difference in the Level of Teachers' Technical Difficulties according to Microsoft Office Application and Selected Variables*

Variable	Category	N	Mean	Mann Whitney U	p- value	Sig. level	Interpretation
Age	Younger	49	44.02	932	0.843		Not Significant
	Older	39	45.1				
Sex	Male	35	43.24	883.5	0.707		Not Significant
	Female	53	45.33				
Civil Status	Single	33	46.94	827	0.487	0.05	Not Significant
	Married	55	43.04				
Highest Educational Attainment	Lower	62	45.81	725	0.458		Not Significant
	Higher	26	41.38				
Average Family Monthly Income	Lower	57	44.08	859.5	0.834		Not Significant
	Higher	31	45.27				

A Comparative Analysis on the Level of Technical Difficulties encountered by Public School Teachers in the New Normal in Multi-Media Platforms when Grouped according to Selected Variables

Mann Whitney U test was used in Table 7 to determine the significant difference in the level of technical difficulties encountered by teachers in the area of multimedia platforms when they are grouped according to variables. Results show that there is no significant difference in the level of technical difficulties in the new normal in the area of multimedia platforms when respondents are grouped according to age [U=818.50, p=0.249], sex [U=843.50, p=0.473], civil status [U=877.00, p=0.792], highest educational attainment [U=731.000, p=0.492], and average family monthly income [U=832.50, p=0.656].

The findings of the researchers debunk that of Villanueva & Niguidula (2019), which indicated that the utilization of multimedia platforms is significant when teachers are grouped according to their age and sex. On the other hand, Gelacio & Comighud (2020) noted that the level of competence and utilization of Information and Communication Technology (ICT) in the school systems are not significantly different when teacher respondents are grouped according to age, sex, as well as according to their civil status, average monthly family income, and highest educational attainment.

Therefore, the results accepted the null hypothesis that teachers' level of technical difficulties in the new normal in the area of multimedia platforms is not significant when respondents are grouped according to their demographic profiles. This implies that respondents, regardless of their age, sex, civil status, highest educational attainment, and average monthly family income, have just the same or common answers on items that measured their difficulty level in the area of multimedia platforms.

Table 7 *Difference in the Level of Technical Difficulties Encountered by Public School Teachers in the New Normal in Multi-Media Platforms when Grouped according to Selected Variables*

Variable	Category	N	Mean	Mann Whitney U	p- value	Sig. level	Interpretation
Age	Younger	49	41.7	818.5	0.249	0.05	Not
	Older	39	48.01				Significant
Sex	Male	35	42.1	843.5	0.473	0.05	Not
	Female	53	46.08				Significant
Civil Status	Single	33	45.42	877	0.792	0.05	Not
	Married	55	43.95				Significant
Highest Educational Attainment	Lower	62	45.71	731	0.492	0.05	Not
	Higher	26	41.62				Significant
Average Family Monthly Income	Lower	57	43.61	832.5	0.656	0.05	Not
	Higher	31	46.15				Significant

Difference in the Level of Technical Difficulties by Public School Teachers in the New Normal in e-Learning Resources according to Demographics

Mann Whitney U test was used in Table 8 to determine the significant difference in the level of technical difficulties encountered by teachers in the new normal in the area of E-learning resources when they are grouped according to variables. Results show that there is no significant difference in the level of technical difficulties in the new normal in the area of E-learning resources when respondents are grouped according to sex [U=762.000, p=0.155], civil status [U=873.000, p=0.766], highest educational attainment [U=730.000, p=0.486], and average family monthly income [U=854.000, p=0.796]. However, technical difficulty level in the aforementioned area is found to be significantly different when respondents are grouped according to age [U=689.000, p=0.025], indicating higher difficulty level among older teachers.

Former results, therefore, accepted the null hypothesis, which states that teachers' level of technical difficulties in the new normal in the area of multimedia platforms is not significant when respondents are grouped according to their sex, civil status, highest educational attainment, and average family monthly income. This implies that respondents, regardless of their aforementioned demographic profile, have just the same or common answers on items that measured their difficulty level in the area of multimedia platforms.

Meanwhile, the latter finding follows Czaja et al. (2006), affirming that age becomes a factor in a person's technological competency. The latter asserted that an older person is not that efficient in some technological areas brought about by the cognitive gap. Often, older people are faced with computer anxieties, which sometimes impede them from utilizing technology to the maximum extent.

The researchers, therefore, rejected the null hypothesis asserting that the level of technical difficulties encountered by teachers in the new normal in the area of multimedia platforms is not significant when grouped according to age. This leads to an implication that responses of the subgroups on items are not the same, with older respondents having a greater difficulty level on e-learning resources with a mean score of 51.33 than the younger respondents with a mean score of 39.06. Therefore, with the significantly higher difficulty level of older teachers, it is further implied that the latter should be well-assisted in technological utilization. They should be more welcoming to the technological changes that take place for them to cope with such trends.

Table 8 *Difference in the Level of Teachers' Technical Difficulties according to e-Learning Resources*

Variable	Category	N	Mean	Mann Whitney U	p-value	Sig. level	Interpretation
Age	Younger	49	39.06	689	0.025		Significant
	Older	39	51.33				
Sex	Male	35	39.74	761	0.155		Not Significant
	Female	53	47.64				
Civil Status	Single	33	45.55	873	0.766	0.05	Not Significant
	Married	55	43.87				
Highest Educational Attainment	Lower	62	45.73	730	0.486		Not Significant
	Higher	26	41.58				
Average Family Monthly Income	Lower	57	43.98	854	0.796		Not Significant
	Higher	31	45.45				

7. Conclusion

After analyzing the findings of this study, it can be concluded that teachers are indeed getting better at utilizing Microsoft Office programs. Refresher courses or training, especially in Microsoft Excel, are recommended to further enhance their skills in the said area. However, their "moderate" difficulty level in multimedia platforms and e-learning resources implies they struggle to maximize the potential benefits of those areas despite them having the know-how of such, as brought about by the common factors like lack of better internet connectivity and the non-availability of Information and Communication Technology (ICT) in the school system and perhaps, in their homes, too. Provisioning ICT-based equipment and enhancing facilities is recommended to raise the teacher's competence in the said areas. Results further indicated the varying technical difficulties in the three areas when respondents are grouped according to their demographic profile. However, the non-significance of the mean score differences in the areas of Microsoft Office programs, multimedia platforms, and e-learning resources (except when grouped according to age) implies that there is no inferior nor superior subgroup in terms of their level of technological competence and/or difficulty in the aforementioned areas. However, the significance of the mean score differences in the e-learning resources when grouped according to age leads to a conclusion that younger teachers tend to utilize and integrate more e-learning resources in the teaching-learning process than the older group due to the former's lower difficulty level than the latter. Training and peer-to-peer tutorials/assistance are recommended to help the more senior teachers cope and decrease their difficulty level in the said area.

8. The Intervention Plan

Rationale

Information and Communications Technology (ICT) play a vital role in delivering quality education to the learners amidst the COVID-19 pandemic. Therefore, the researchers proposed a 1-year intervention plan which aims to upskill teachers' competence and minimize their difficulties in terms of Microsoft office programs, multimedia platforms, and e-learning resource utilization. Their re-skilling will be made possible by the conduct of training and seminars which are to update the educators about MS Office programs' functions and updates and to remind them of the importance of the use of e-learning resources and multimedia platforms, as well as the proper use of such especially in the educational setting.

This proposed intervention plan will facilitate further teachers' continuous learning of technology to depreciate their technical difficulties as it was found out that public high school teachers in this specific school are still having low to moderate levels of difficulty in the utilization of technology in the workplace when grouped according to their demographics such as age, sex, civil status, average monthly family income, and highest educational attainment.

Objectives

This section presents the proposed one-year work plan to be implemented in one national high school in the District of Murcia, Division of Negros Occidental.

After the implementation of the intervention plan, the teachers should have:

1. Revisited key competencies in using MS Office programs, multimedia platforms, and e-learning resources utilization;
2. Acquired further competencies in the use of Microsoft Office programs, multimedia platforms, and e-learning resources;
3. Integrated multimedia platforms in the teaching and learning process;
4. Enriched class discussions and personal awareness through e-learning resources, especially those that are found in the DepEd commons; and
5. Become at least proficient in utilizing e-learning resources regardless of the teachers' age.

PROPOSED INTERVENTION PLAN

Areas of Concern	Findings	Objectives	Strategies	Time Frame	Budgetary Requirement	Persons Involved	Success Indicators
Microsoft Programs	<p>Office</p> <p>Difficulty in the familiarity with the parts and functions of Microsoft Office Programs, especially in Spreadsheet</p> <p>Inability to integrate and utilize Microsoft Office programs in the profession.</p>	To address the teachers' need for the familiarity and integration of Microsoft Office Programs in the profession.	Conduct refresher courses, training and workshops with the use of Microsoft Office programs to revisit the basics and reintroduce the complex functions of the tools	This activity can be done during LAC sessions by the department or during In-Service Training	None	Master Teacher Teachers ICT Coordinators School Heads	90% ability of the teachers to utilize Microsoft Office Programs
Multi-Media Platforms	Moderate level of difficulty with multimedia platforms in delivering the lessons to the learners.	To integrate and make teachers familiar with and utilize the different multimedia platforms in delivering the teaching-learning process.	Utilization of school facilities such as computer laboratories and internet connectivity Organize training and workshops to use and integrate multimedia platforms like Google Classroom, Facebook, Zoom, etc., to deliver lessons to the learners.	This activity can be done during LAC sessions by the department or during In-Service Training. It should be done first of the opening of classes.	None	Teachers Students Master Teacher Teachers ICT Coordinators School Heads	80% ability of the teachers to utilize and integrate multimedia platforms in delivering the teaching-learning process.
E-Learning Resources	<p>Moderate level of difficulty with e-Learning resources.</p> <p>Inability to utilize e-Learning resources as a supplementary</p>	To introduce the different learning resources to the teachers and to properly utilize and integrate the said resources into the profession.	Organize trainings and workshops in the utilization of e-learning resources. Reintroduce DepEd Commons and PD LMS to the teachers and	This activity can be done during the department's LAC sessions or in-service training. Throughout the	None	Master Teacher ICT Coordinators School Heads Younger and older teachers	80% competency of teachers in accessing the web for E-journals, blogs, E-books, thesis and dissertations, and other learning

Areas of Concern	Findings	Objectives	Strategies	Time Frame	Budgetary Requirement	Persons Involved	Success Indicators
	<p>reference and teaching basis.</p> <p>Older teachers are less proficient in utilizing E-learning resources as compared to their counterparts who are the younger ones.</p> <p>Inability to access DepEd-related e-learning resources such as DepEd Commons and Professional Development LMS.</p> <p>Internet connectivity issues</p>	<p>To encourage peer teaching and learning between older and younger teachers.</p>	<p>address log-in-related concerns through the proper channel.</p> <p>Initiate peer tutoring between teachers that are younger and older, especially during office hours, to encourage sharing of ideas and know-how on the use of E-learning resources</p>	<p>academic year, when it is convenient for the teachers to collaborate with one another on the utilization of E-learning resources.</p>			<p>resources that can be found online.</p>

9. References

- Aditya, D. S. (2021). *Embarking Digital Learning Due to COVID-19: Are Teachers Ready?* Journal of Technology and Science Education, v11 n1 p104-116.
- Czaja, S. et al. (2006). *Factors Predicting the Use of Technology: Findings from the Center for Research and Education on Aging and Technology Enhancement (CREATE)*. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1524856/>
- Davis, F. D. (1989). *Perceived usefulness, perceived ease of use, and user acceptance of information technology*. MIS Quarterly, 13(3), 319-340, University of Minnesota.
- Enicola, P. (2021, September 1). *Education Issues in the Philippines: The Ongoing Struggle*. ChildHope Philippines. <https://childhope.org.ph/education-issues-in-the-philippines/>
- Figueroa, LL., Lim, S. and Lee, J. (2016). *Investigating the Relationship Between School Facilities and Academic Achievements through Geographically Weighted Regression*. <https://doi.org/10.1080/19475683.2016.1231717>
- Gelacio, J. M. O., & Comighud, S. (2020, May 30). *Utilization of Information and Communication Technology (ICT) Resources*. Zenodo. <https://zenodo.org/record/3865911>
- Glen, S. (2022). *Cronbach's Alpha: Definition, Interpretation, SPSS*. <https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/cronbachs-alpha-spss/>
- Jiang, N., & Ryan, J. (2020, May 29). *How does digital technology help in the fight against COVID-19?* World Bank Blogs. <https://blogs.worldbank.org/developmenttalk/how-does-digital-technology-help-fight-against-covid-19>
- Klein, K. (2020). *2020 RAND Annual Report*. RAND. <https://doi.org/10.7249/CP-A1065-1>
- Konig, J., Biela, D., & Glutsch, N. (2020, August 18). *Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany*. Taylor & Francis. <https://doi.org/10.1080/02619768.2020.1809650>
- Lacsamana, N. (2021, July 12). *For remote learning to succeed, teachers have to be retrained — an edtech company*. BusinessWorld Online. <https://www.bworldonline.com/technology/2021/07/12/381755/for-remote-learning-to-succeed-teachers-have-to-be-retrained-edtech-company/>
- Mahdi, H. S., & Al-Dera, A. (2013, May 8). *The Impact of Teachers' Age, Gender and Experience on the Use of Information and Communication Technology in EFL Teaching | Saleh Mahdi | English Language Teaching | CCSE*. <https://www.ccsenet.org/Journal/Index.Php/Elt/Article/View/27261>.
- McCombes, S. (2019). *Descriptive Research Design: Definition, Methods, and Examples*. Scribbr. <https://www.scribbr.com/methodology/descriptive-research/>
- Moore, M. G., & Kearsley, G. (2011). *Distance Education: A Systems View of Online Learning*. Cengage Learning.

- Oducado, R. M. (2020). *Survey Instrument Validation Rating Scale*. West Visayas State University, Iloilo City, Philippines.
- Ogwu, E. (2016). *Comparative Analysis of Microsoft Package (MSP) Competence among Teacher Trainee Students in Botswana and Nigeria: Implications for Curriculum Practices*. *Journal of Education and Practice*.
<https://files.eric.ed.gov/fulltext/EJ1115973.pdf>
- Orale, R., & Quejada, A. (2018, June). *Lived Experiences of Elementary Teachers in a Remote School in Samar, Philippines*. ResearchGate.
https://www.researchgate.net/publication/327232303_Lived_Experiences_of_Elementary_Teachers_in_a_Remote_School_in_Samar_Philippines
- Sajid, J. (2018, January). *Investigation of Information and Communication Technology (ICTs) related resources and Prospective Teachers' Competencies in ICTs at University Level*. *Journal of Social Sciences*. https://www.researchgate.net/figure/Prospective-teachers-Competency-in-Microsoft-words-Main-operation_tbl2_329813826
- Siedlecki, S (2019). *Understanding Descriptive Research Designs and Methods*. Wolters Kluwer Health, Inc. https://journals.lww.com/cns-journal/Citation/2020/01000/Understanding_Descriptive_Research_Designs_and.4.aspx
- Shelly, G. B., Vermaat, M. E., & Quasney, J. (2019). *Microsoft Office 2019: Introductory*. Cengage Learning.
- Steinmetz, R., & Nahrstedt, K. (2010). *Multimedia Systems*. Springer.
- Sumabut, A., & Tuamsuk, K. (2021, September). *Online Teaching and Learning Ecology in Thai Higher Education during the COVID-19 Pandemic*. ResearchGate.
https://www.researchgate.net/publication/354925360_Online_Teaching_and_Learning_Ecology_in_Thai_Higher_Education_during_the_COVID-19_Pandemic
- Thomas, L. (2020). *Stratified Sampling: A Step-by-Step Guide with Examples*. Scribbr.
<https://www.scribbr.com/methodology/stratified-sampling/>
- United Nations. (2022, March 31). *COVID-19: Education risks becoming 'greatest divider.'* UN News. <https://news.un.org/en/story/2022/03/1114932>
- Villanueva, C., & Niguidula, J. (2019, August). *Teachers' Extent of Using Multimedia Approach as 21st Century Instructional Practices in Geographically Isolated and Disadvantaged Areas (GIDA)*. *International Journal of Information and Education Technology*.
<http://www.ijiet.org/vol9/1267-CD057.pdf>
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.
- Wahyuningsih, D., Wahyono, S., & Nugroho, A. (2021, December 29). *Teachers' Difficulties in Developing Learning Resources | KnE Social Sciences*. Knowledge E.
<https://knepublishing.com/index.php/KnE-Social/article/view/10024>

Oral Communication Performance in Relation to Selected Variables

Cyreljoy M. Ebrada

STI West Negros University, Bacolod City, Negros Occidental, Philippines

Email : cyreljoyebrada@wnu.sti.edu.ph

Abstract

This study aimed to determine the Oral Communication Performance in relation to the Selected Variables of Grade 11 Students during the school year 2019-2020 in STI West Negros University. The descriptive research design was used in this study. Out of 944 Grade 11 students, only 281 were taken as samples. The sample respondents were identified using a simple random sampling technique. The questionnaire was adapted from Horwitz et al. (1986). The Foreign Language Classroom Anxiety Scale (FLCAS) has three dimensions: anxiety about communicating, tests, and anxiety about receiving a bad grade. The grades in the first semester of Grade 11 students were taken as the basis for the oral communication performance in relation to selected variables such as sex, junior high school origin, senior high school strand, and English Language Anxiety. The data were analyzed using statistical tools like, mean, rank, frequency counts, percentage, and chi-squared and gamma coefficient tests for relationship. Findings showed that most of the students taken as sample size were female, most of their junior high school origin is public, mainly from the Humanities and Social Sciences strand, and more than half have moderate English language anxiety. Grade 11 students have a "Moderate Level" of communication anxiety, test anxiety, and fear of negative feedback anxiety. Thus, students' overall English Language Anxiety level is "Moderate" as well. The findings also revealed a substantial correlation between sex, strand, and English language anxiety and oral communication skills. At the same time, there is no association between their performance in oral communication and junior high school origin.

Keywords : oral communication, oral communication performance, speech anxiety, Communication apprehension (CA), Test Anxiety, and Fear of Negative Evaluation, English Language Anxiety

1. Introduction

Oral communication is essential for people's workplace performance as well as for Senior High School students who are learning English. It can exist in many forms, including informal conversations which occur spontaneously, and, in most cases, the content cannot be planned in a structured environment (Rahman, 2010, p.3).

It occupies an essential part of the language courses of educational institutions (Brink & Costigan, 2015, pp.384-409). It is also a dynamic skill primarily used in classrooms and workplaces. It is an active and productive process that involves the reception, construction, and conveyance of meaning through spoken words. It helps the speaker to build and share meaning by using verbal and nonverbal symbols in different contexts (Wyse, Jones, Bradford, & Wolpert, 2013, pp.9-11).

Meanwhile, non-native English speakers often modify the language for global access today when English is referred to as the international language and provide a means of professional advancement. English positively leads scientific communication (Tardy, 2003, pp.247-269) and information technology (Amamio, 2000, p.17).

Given the circumstances, Philippine academic units adopted English as a language of instruction through Executive Order 210 Series of 2003: Establishing the Policy to Strengthen the Use of the English Language as a Medium of Instruction in the Educational System after seeing English as a potent tool for raising its international standing. Within 15 years of implementing this policy, international studies showed that students who learn English as a second language face speaking-related language anxiety as it negatively impacts the development or status of second-language learners (Huang, 2014, p.8).

Hence, based on recent studies, the field of communication changes all segments of society, and the importance of communication studies is an essential component. The Senior High School Program included the course Oral Communication in Context for Grade 11 pupils in response to this need. Since communication is said to be beneficial in all aspects and is used every day, the results of this research will contribute to the repercussions of verbal communication on the student's academic performance affected by various factors, including English Language Anxiety.

Language anxiety has become a significant concern in second and foreign language learning research over the last three decades and is a topic that triggers substantial differences of opinion. As the first theory that emphasizes the specific nature of English language anxiety, this study is anchored in Horwitz, Horwitz, and Cope's view of foreign language anxiety, which has been used in several studies. Anxiety associated with learning a foreign language is a well-known emotional element described as "a distinct complex of self-perception, beliefs, and behaviors due to the peculiarities of language learning and about classroom instruction arising process" (Horwitz and al., 1986). English language anxiety has three main factors: Communication apprehension (CA), Test Anxiety, and Fear of Negative Evaluation.

In addition, the Communication Apprehension Theory of McCroskey (1977) regards oral communication apprehension as an individual's high, medium, or low level of dread or anxiety related to speaking with another person or people. This also emphasizes the avoidance or nonparticipation in to avoid experiencing fear or anxiety and subsequent withdrawal from contextual or situational communication due to inadequate communication skills experienced by an individual, which has shaped educational outcomes as a primary concern impacting secondary school student's academic performance. Therefore, focusing on oral communication apprehension in the classroom is essential because it is critical to success in the intellectual milieu.

Moreover, this study is also anchored on Social Learning Theory by Vygotsky (1978). This theory explains how people learn in social contexts (learn from each other's peers, teachers, and experts) and informs how teachers construct active learning communities, influencing the learning process. This theory contends that social interaction, rather than only an individual's thinking, is the basis of learning and development. Therefore, students must participate actively in classroom interactions and speaking activities because these may lead them to achieve good academic performance. However, students may experience fear or oral communication apprehensions that impede their active involvement in classroom activities, resulting in poor performance and, ultimately, poor academic achievement. Since the study also focuses on the relationship between students' oral English communication and academic performance, this study is pinned on the Cognitive Academic Language Proficiency (CALP) of Cummins (1979). In educational settings, both question-answer and conversational formats entail using academic

language. Conversationally proficient students need exposure to and practice with academic language to function successfully at school.

These theories are applicable in determining the level of Oral Communication performance of Grade 11 students in relation to selected variables. These present a phenomenal issue and are mainly a negative factor in language learning. The differences in English language learning situations and variance in underlying causes for classroom anxiety require more research to examine students' anxiety levels, causes and consequences of stress, and their relationships with language proficiency in various second/foreign language learning contexts.

Moreover, the rationale for routinely considering sex and gender in implementation research is multifold. Sex is essential in decision-making, communication, stakeholder engagement, and preferences for the uptake of interventions (Graham, 2016). Depending on the situation, program theories may behave differently within and between sexes, genders, and other transversal traits. Likewise, males display more negative social behavior than females in the classroom, which is thought to play a role in their academic performance (Downey & Yuan, 2005).

The discussion paper from the University of the Philippines School of Economics also makes a significant indirect connection between high school education and the quality of the school background. The high school background is essential when the entrance test score is used as the dependent variable. The average performance of high schools from the Metro Manila region is better than those from other regions. Similarly, high schools from well-funded first-class cities perform very well compared to those from less financially endowed cities.

Besides, it is considerably alarming that Filipino senior high school (SHS) students are still struggling with many issues in oral communication. For instance, some SHS students feel uncomfortable speaking English during public speaking, group discussions, meetings, and other interpersonal conversations (Bastida Jr. & Yap, 2019). Generally, most studies in this field have only focused on the value of having oral communication as a subject and context and not much on the chosen strand to the student's academic performance in the said subject. Hence, the study's results will be one of those bases for further research.

Meanwhile, the students must believe in their ability to speak the universal language. It is not because English is a superior language to other languages that Grade 11 students need to have strong communication skills; instead, it is because, for the time being at least, it is the universal language for business, media, science, and a variety of other human endeavors.

Indeed, the main idea of this study is to improve the oral communication performance of students, which is a core subject at STI West Negros University. Conducting this study within the locale will not only add to the knowledge of English-speaking anxiety in the Philippines. Still, considering some variables, it may also prove its relation to the lowering proficiency of English usage in the country. To help students, teachers, and other stakeholders with the existing problems of the students in STI West Negros University, hence, this study.

2. Objectives

This study aimed to determine the level of oral communication performance of Grade 11 students in relation to selected variables at STI West Negros University for the School Year 2019-2020. Specifically, this study sought to answer the following questions: 1) What is the profile of the respondents in terms of sex, Junior High School Origin, and Senior High School

Strand; 2) What is the level of English Language Anxiety of Grade 11 students as a whole and in terms of Test Anxiety, Communication Anxiety, and Fear of Negative Feedback Anxiety; 3) What is the level of the performance in Oral Communication of Grade 11 students when taken as a whole and grouped according to the variables mentioned above; and 4) Is there a significant relationship between the Oral Communication performance of Grade 11 students and their profile?

3. Materials and methods

The conceptual framework of the study showed the variables of the study. The study's independent variables were sex, junior high school origin, senior high school strand, and English Language Anxiety. Assessments on the student's level of English Language anxiety, such as Test Anxiety, Communication Anxiety, and Fear of Negative Feedback Anxiety, were measured in the qualitative description of "Strongly Agree" (5), "Agree" (4), "Undecided" (3), "Disagree" (2), "Strongly Disagree" (1), and qualitative interpretation as Very High Level, High Level, Moderate Level, Low Level, and Very Low Level respectively as reflected in the criteria set forth by Carter V. Good and Douglas B. Scates and these assessments may vary according to the variables as given in the above profile of the respondents. Furthermore, these variables were correlated with their Oral Communication academic performance.

The academic performance of the students was taken from their first semester (first and second quarters) grades in Oral Communication and was categorized in the performance report of the students as reflected in their respective report cards (Form 138); Descriptors were the following: Outstanding (90-100%, Very Satisfactory (85-90%), Satisfactory (80-84%), Fairly Satisfactory (75-79%) and Did Not Meet Expectations (below 75%). This study used the descriptive research design to determine the level of Oral Communication performance of Grade 11 students in relation to selected variables such as sex, Junior High School Origin, Senior High School strand, and English Language Anxiety at STI West Negros University for the School Year 2019-2020. In terms of data gathering, quantitative methods were implemented. The participants of this study were determined through stratified random sampling to identify the respondents from seven (7) strands. Furthermore, to assess the level of performance in oral communication of the Grade 11 students, their grades in Oral Communication were taken from their first semester (first and second quarters) and were categorized in their performance report as reflected in their respective report cards (Form 138). On the other hand, a survey questionnaire on English Language Anxiety adopted from Horwitz et al. (1986), who developed the Foreign Language Classroom Anxiety Scale (FLCAS), which comprises three dimensions— communication anxiety, test anxiety, and fear of negative evaluation was answered by the Grade 11 students. For the data analyses, frequency count and percentage, mean (or average), weighted mean, and chi-square test of independence was utilized.

Also, the researcher obtained permission from the vice president for academic affairs before gathering student data and sending it to the senior high school principal. Reproduction of the standardized questionnaires was done as soon as the request was approved. Afterward, the study's respondents rated their responses according to their experiences on a 5-point Likert-type scale from strongly agree to disagree. The research instrument did not undergo the validation and reliability process because it was a standardized questionnaire adopted from reliable and valid sources. A panel of experts evaluated and endorsed the standardized questionnaire's validity and reliability before it was used for test evaluations.

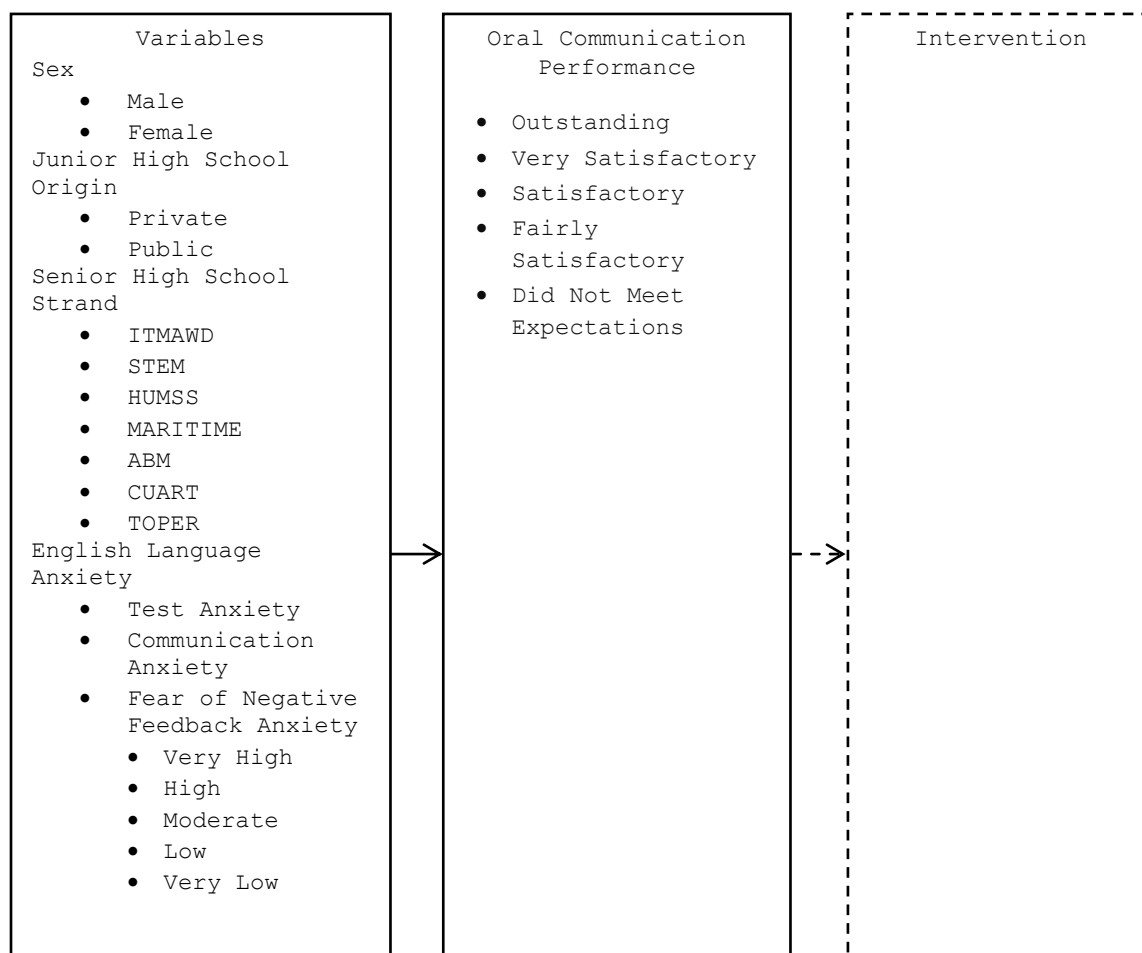


Figure 1 Schematic Diagram Illustrating the Relationship between the Independent and Dependent Variables of the Study.

The following scale was used to interpret the mean of the student's English Language anxiety level.

Mean Score Range	Description	Interpretation	Verbal Interpretation
4.21-5.00	Strongly Agree	Very High	Very high in test, communication, and fear of negative feedback anxiety
3.41-4.20	Agree	High	High in test, communication, and fear of negative feedback anxiety
2.61-3.40	Undecided	Moderate	Moderate in test, communication, and fear of negative feedback anxiety
1.81-2.60	Disagree	Low	Low in test, communication, and fear of negative feedback anxiety
1.00-1.80	Strongly Disagree	Very Low	Very low in test, communication, and fear of negative feedback anxiety

To interpret the mean of the level of Oral Communication performance of Grade 11 students at STI West Negros University, the following scale was used.

Descriptors	Verbal Interpretation
90-100%	Outstanding
85-90%	Very Satisfactory
80-84%	Satisfactory
75-79%	Fairly Satisfactory
below 75%	Did Not Meet Expectations

4. Results

All the procedures were done per the specific objectives related to the oral communication performance of Grade 11 students of STI West Negros University in relation to selected variables.

Analysis of the data revealed that female dominates the sample size population of Grade 11 students in STI West Negros University-Senior High School Department. As of junior high school origin, most of the respondents were public school completers. It also revealed that most students aspired to become teachers, lawyers, police officers, or medical practitioners.

Table 1 Frequency and Percentage Distribution as the Profile of the Respondents in terms of sex, junior high school origin, and senior high school strand.

With a mean score of 3.0, the findings indicated that the student's test anxiety was moderate. The student's responses in the area of communication anxiety earned a mean score of 3.1 which was interpreted as a moderate level of anxiety. They received a mean score of 3.2 for their fear of receiving negative feedback, which was also considered moderate; respondents received a mean score of 3.1, indicating that students' levels of English language anxiety were moderate.

Table 2 Level of English Language Anxiety as a whole and in terms of Test Anxiety, Communication Anxiety, and Fear of Negative Feedback.

Areas of English Language Anxiety	Level	Frequency	Mean	Interpretation
Test Anxiety	Very High	2	3.0	Moderate
	High	64		
	Moderate	142		
	Low	61		
	Very Low	12		
Communication Anxiety	Very High	12	3.1	Moderate
	High	81		
	Moderate	113		
	Low	57		
	Very Low	18		
Fear of Negative Feedback	Very High	21	3.2	Moderate
	High	78		
	Moderate	114		
	Low	58		

Variable Grouping	Classification	Frequency	Percentage (%)
Sex	Male	123	43.8
	Female	158	56.2
	Total	281	100.0
Junior High School Origin	Private	65	23.1
	Public	216	76.9
	Total	281	100.0
Senior High School Strand	ITMAWD	38	13.5
	STEM	66	23.5
	HUMSS	68	24.2
	MARITIME	16	5.7
	ABM	40	14.2
	CUART	30	10.7
	TOPER	23	8.2
	Total	281	100.0

	Very Low	10		
As a Whole	Very High	5	3.1	Moderate
	High	76		
	Moderate	139		
	Low	49		
	Very Low	12		
Total		281		

Results showed a very satisfactory level of oral communication performance in relation to sex, as both male and female students acquired a mean of 87.0 and 88.0, respectively. Also, students from private and public junior high school origins' mean scores, 87.0 and 88.0, respectively, were interpreted as having satisfactory oral communication performance. ABM students took an outstanding level of oral communication performance with a mean of 91.0. The maritime strand had a satisfactory level, while the rest of the remaining strands were all interpreted as having a very satisfactory level of oral communication performance. Besides, students with a very high level of ELA had a mean of 83.0, interpreted as a satisfactory level of oral communication.

Table 3 Level of Oral Communication Performance of Grade 11 students in terms of Sex, Junior High School Origin, Senior High School Strand, and English Language Anxiety.

Variable	Classification	Mean	Level of Oral Communication Performance
Sex	Male	87.0	Very Satisfactory
	Female	88.0	Very Satisfactory
Junior High School Origin	Private	87.0	Very Satisfactory
	Public	88.0	Very Satisfactory
	ITMAWD	85.0	Very Satisfactory
	STEM	90.0	Very Satisfactory
	HUMSS	87.0	Very Satisfactory
Senior High School Strand	MARITIME	83.0	Satisfactory
	ABM	91.0	Outstanding
	CUART	87.0	Very Satisfactory
	TOPER	86.0	Very Satisfactory
	Very High	83.0	Satisfactory
	High	88.0	Very Satisfactory
	Moderate	87.0	Very Satisfactory
English Language Anxiety	Low	89.0	Very Satisfactory
	Very Low	89.0	Very Satisfactory

Out of 281 students taken as a sample size, 100 students had an outstanding level, 111 students were very satisfactory, 55 students had a satisfactory level, 13 were fairly satisfactory, and two did not meet expectations. Hence, when taken as a whole, the respondents get a very satisfactory level of oral communication performance with a mean of 88.0.

Table 4 Level of Oral Communication Performance of Grade 11 students as a Whole.

Levels of Oral Communication Performance	Frequency	Mean	Interpretation
Outstanding	100	88.0	Very Satisfactory
Very Satisfactory	111		
Satisfactory	55		
Fairly Satisfactory	13		
Did Not Meet Expectations	2		
Total	281		

The results indicated a significant relationship between the oral communication performance of STI West Negros University Grade 11 students and sex with $X^2(4) = 11.467$ and $p\text{-value} = 0.022$.

Table 5 Relationship between Oral Communication performance of Grade 11 students and Sex.

Sex	Level of Oral Communication Performance					Total
	Outstanding	Very Satisfactory	Satisfactory	Fairly Satisfactory	Did Not Meet Expectations	
Male	35	46	32	9	1	123
Female	65	65	23	4	1	158
Total	100	111	55	13	2	281

The table revealed insufficient evidence to reject the null hypothesis since the computed test statistic was 2.710, less than the critical value of 9.488.

Table 6 Relationship between Oral Communication performance of Grade 11 students and Junior High School Origin.

Junior High School Origin	Level of Oral Communication Performance					Total
	Outstanding	Very Satisfactory	Satisfactory	Fairly Satisfactory	Did Not Meet Expectations	
Public	25	21	14	4	1	65
Private	75	90	41	9	1	216
Total	100	111	55	13	2	281

With $X^2(24) = 80.091$ and a $p\text{-value}$ less than 0.01, the chi-square test found a strong correlation between the senior high school strand and oral communication performance.

Table 7 Relationship between Oral Communication performance of Grade 11 students and Senior High School Strand.

Senior High School Strand	Level of Oral Communication Performance					Total
	Outstanding	Very Satisfactory	Satisfactory	Fairly Satisfactory	Did Not Meet Expectations	
ITMAWD	8	12	12	5	1	38
STEM	36	25	3	2	0	66
HUMSS	19	31	16	1	1	68
MARITIME	0	4	9	3	0	16
ABM	23	17	0	0	0	40
CUART	9	14	6	1	0	30
TOPER	5	8	9	1	0	23
Total	100	111	55	13	2	281

Meanwhile, in the study's findings, there was a relationship between oral communication performance and English Language anxiety using Gamma Coefficient (Goodman and Kruskal's Gamma). It showed a negative correlation, which was statistically significant ($G = -0.155$, $p < 0.041$).

Table 8 Relationship between Oral Communication performance of Grade 11 students and English Language Anxiety.

English Language Anxiety	Level of Oral Communication Performance					Total
	Outstanding	Very Satisfactory	Satisfactory	Fairly Satisfactory	Did Not Meet Expectations	
Very High	0	2	3	0	0	38
High	23	37	12	4	0	66
Moderate	47	53	29	8	2	68
Low	24	15	9	1	0	16
Very Low	6	4	2	0	0	40
Total	100	111	55	13	2	281

5. Discussion

Female dominates the sample size population of Grade 11 students in STI West Negros University-Senior High School Department. Most of them had public junior high school origin with a dense school population which might affect their exposure to the English language or the opportunity to use media and technology in learning and acquiring communication skills. Utmost came from the HUMSS strand and had moderate English Language Anxiety. Students usually have test, communication, and negative feedback anxiety, but this anxiety is moderate. It appears their anxiety is just enough for them not to become very anxious or very relaxed, which may prevent them from achieving ultimate success in their language learning. They are likely able to handle communication tasks, tests, and evaluations resulting in a very satisfactory oral communication performance.

Moreover, there is a significant relationship between oral communication performance and the variables such as sex, senior high school strand, and English Language anxiety. Still, no significant association is noted between the junior high school origin and their performance in oral communication. Specifically, the tendency for specialization in primary role type has appeared in interaction situations, with men preponderantly performing the task role and women the socio-emotional. Hence, individual verbal performance has contributed significantly to sex differentiation of the communicators. With few writers who have been able to draw on any structured research into the relationship of the strands in Senior High School wherein such a program was launched nationwide last June 2016 to the academic performance in the English communication context, this study contributes to this gap in the current literature on SHS strand and language studies. More importantly, the findings of this study will serve as the basis for further research.

Meanwhile, the study's findings show a relationship between oral communication performance and English Language anxiety using Gamma Coefficient (Goodman and Kruskal's Gamma). It showed a negative correlation, which was statistically significant ($G = -0.155$, $p < 0.041$). This implies that the higher the English Language Anxiety, the lower the oral communication performance. Lastly, the findings reveal no significant association regarding junior high school origin, indicating that the levels of verbal communication performance are almost equal even when compared to public and private schools.

6. Conclusion

Most Grade 11 students taken as sample size are females, completed their junior high school in public schools, taking HUMSS, and have moderate English Language Anxiety. Also, the level of English language anxiety among Grade 11 students of STI West Negros University is moderate, even when grouped in terms of tests, communication, and fear of negative feedback anxieties. The oral communication performance of the respondents indicates that they had a good grasp of the subject matter, and their performance exceeded the average level or as close to excellence. The oral communication performance of Grade 11 students of STI West Negros University is affected by their sex, senior high school strand, and English Language anxiety.

Further studies must be conducted on other respondents with different profiles and locales. Likewise, it is necessary to administer the study among students with various average family incomes to study the profile of the students who need assistance and encourage possible conferences or sessions. The student's interest and inclinations in oral communication should be heightened through well-supervised co-curricular activities related to language and communication. Moreover, collaborative efforts of the school administrator and language teachers, parents, and stakeholders should be made to implement an improvement plan for every student. The teachers should also adhere to administering rubrics for the different learning tasks to make the students accustomed to a performance-based outcome.

Furthermore, the partnership between the school and the broader community should be encouraged and supported to facilitate experiential learning opportunities that benefit the student's fluency in oral communication. Also, a concrete plan should be formulated and implemented to promote an English (speaking) program in school to develop self-confidence and treat anxiety in speech.

7. Acknowledgements

With profound gratitude, the researcher expresses his deep indebtedness to the following persons who rendered significant contributions in the preparation and realization of this thesis:

Foremost, God Almighty, for the Divine intervention, guidance, and mediation and who has been so gracious in the fulfillment of this endeavor;

Dr. Trudy C. Cerbo, the researcher's adviser, for shedding some light in discerning a good topic for research, sharing her time and expertise;

Dr. Sharon L. Apohen and Mr. Marvin Elray R. Paclibar for their suggestions and provisions in the analyses of data and statistical computation;

Dr. Maylin M. Tongcua, for her assistance as one of the panelists, together with Dr. Luciano T. Magallanes, Dr. Nemesio C. Cañete, Dr. Orlando Z. Beñales, and Dr. Fatima G. Bullos, for their valuable inputs and ideas that made this research work possible;

Dr. Wilfredo O. Hermosora, Vice President for Academic Affairs, and Dr. Rey T. Eslabon, Senior High School Principal of STI West Negros University, for the approval of the request to conduct the study in the said institution;

the faculty members in Senior High School for accommodation and help during the conduct of the actual survey.

8. References

Books

- Brink, K., & Costigan, R. (2015). Oral communication skills: *Are the workplace priorities and AACSB-accredited business programs aligned?* Academy of Management Learning & Education.
- Downey, D., & Yuan, A. (2005). Sex Differences in School Performance During High School: Puzzling Patterns and Possible Explanations. *Sociological Quarterly*, pp. 299–321.
- McCroskey, J. C. (1977). Oral Communication Apprehension: A Summary of Recent. *Human Communication Research*, pp. 78–96.
- Rahman, M. (2010). *Teaching Oral Communication Skills: A Task-based Approach*. English for Specific Purposes World.
- Wyse, D., Jones, R., Bradford, H., & Wolpert, M. (2013). *Teaching English, Language, and Literacy*. Routledge.

Journal Articles

- Amamio, J. (2000). Attitudes of Students, Teachers, and Parents of RVM Schools in Metro Manila toward English and Filipino as Media of Instruction. *UE Today*, p. 17 (4).
- Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question, and some other matters. *Working Papers on Bilingualism*, pp. 19, 121–129.
- Graham, S. (2016). Gender Differences in Language Learning: The Question of Control. *The Language Learning Journal*, pp. 18–19.
- Horwitz, E.K., Horwitz, M., & Cope, J. (1986). Foreign Language Classroom Anxiety. *Modern Language Journal*. 70, 125-132.
- Tardy, C. (2003). The Role of English in Scientific Communication: Lingua Franca or Tyrannosaurus Rex. *Journal of English for Academic Purposes*, pp. 3, 247-269

Internet periodicals

- Bastida Jr., E. L., & Yapo, J. R. (2019). Factors Contributing to Oral Communication Apprehension Among Selected Senior High School Students in Santa Rosa City, Laguna, Philippines. *Asia Pacific Journal of Contemporary Education and Communication Technology*, 5(2), 1-2.
- Huang, Y. (2014). Taiwanese Graduate Students' Voices on Language Anxiety over Writing Academic Papers. *Journal of Language Teaching and Research*, p. 5, 1219–1229. Retrieved from <http://doi.org/10.4304/jltr.5.6.1219-1228> on April 2, 2021.

CYRELJOY M. EBRADA, a native of Bacolod City in the Philippines, is a professor of English in the College of Education at STI West Negros University with a master's degree in English. Her enthusiasm for assisting English language learners in mastering English skills led her to pursue studies in oral communication.

Responsiveness of Higher Education Institutions in the Philippines for 21st Century Learners

Roger A. Martinez, Jr.

WCC-Aeronautical and Technological College, Binalonan Campus, Binalonan, Pangasinan, 2436, Philippines

Email : roger.a.martinez89@gmail.com

Abstract

The ultimate goal of this review is to determine responsiveness of higher education schools in the Philippines for 21st century learners specially in developing their skills to meet the demands of the new industry specially becoming imperative to guarantee inclusive, equitable and quality education to learners while promoting lifelong learning opportunities for all while dealing with post-pandemic social issues. This review evaluates the components of best practices and challenges that have been considered in 21st century skills frameworks and identifies the teaching and learning methods and key stakeholders impacted. All nations around the world consider the 21st century learners nowadays as they are influence by modern technology, their phase of learning does not end with the four corners of their rooms, from the review countries like US, Europe and Asia noticed that learners are predominantly underperforming, while some review includes statutes that 21st century learners are performing well, but affected on how higher education institution cater the needs of the 21st century learners especially in the Philippines. The review may shed some light on the kinds of research studies that examine these responsiveness issues and best practices among higher education schools around the world especially in the Philippines.

Keywords : responsiveness, higher education institution, 21st century learners

1. Introduction

As our world evolves, so does education and that learning has been transformed tremendously over the last decade as an apparent influence of the technological revolution (Rosen, 2016). There is no one-size-fits-all solution for learning in classrooms that use teaching approaches that are attuned to 21st-century skill development. Maintaining the basic academic structure of the individual and promoting the quality of life in our society are among the primary goals of higher education today. Some Higher Education Institutions (HEIs) are facing the urgent needs of 21st century learners. Most of them update and revise their curriculum, implement a learning management system, equip their schools with modern tools and equipment, Greenhill (2010) also stated that most schools nowadays to cope with the needs of the 21st century learners is by training their teachers with innovative teaching approaches that integrate interactivity and engaging appropriate content of the technology align with the new curriculum. HEIs, must therefore be responsive to the opportunities and challenges presented by the changing needs of 21st century learners, including shaping the higher education sector based on the future employment needs of their graduates.

Responsiveness is defined as the ability of Higher Education Institutions (HEIs) to be internally focused, responding the direction and needs of a constantly changing enterprise (Kerr, 2001) while 21st century, defined as the information age, requires far more than a high school

diploma to enter the labor market, and higher education institutions, as well as its curriculum and accountability systems, must reflect the skills essential to success.

On the other hand, one of the challenges schools face in meeting the educational needs of each individual student is measured not only by the lack of classrooms and others but also by the influence of modern technology today, the skills of teachers and the learning style of students, business requirements and 21st century society to name a few. The United Nations (UN) Agenda 2030 Sustainable Development Goals (SDGs) 2020 Report (<https://unstats.un.org/>) pointed out that efforts to ensure inclusive, equitable and quality education and lifelong Promoting learning for all (SDG4) have been negatively affected by the months-long closure of school and universities due to the pandemic and this affects educational outcomes. Although almost all schools worldwide offer online learning thru learning management systems and virtual classrooms, internet access is limited for many students as well as other schools specially those who belongs to remote areas and underdeveloped countries with limited internet access compared to countries with high-speed internet connection. In addition, the responsiveness of the schools also depends on the technical skills of the teachers and their teaching also depends on their computer skills and parents who serve as their teachers and tutors at home.

The skills given to the 21st century students prepare them to their professional life or future employment with the ability to think critically and creatively, to collaborate with others, to take the initiative when a job is assigned of them, and to use technology to its full extent. Studies exploring responsiveness focused on students' experiences and teachers' experience have evidently increased (e.g. Woods, 2020, Liesa-Orús, et al., 2020, Crawford et al., 2020, Cacheiro-Gonzalez, et al., 2019, Brown et al, 2022 Yang et al, 2022). Research studies examining the responsiveness of schools to the needs of their students and teachers were also reasonably available, but these were fragmented and little research has been done to compile the results of these studies, particularly those focusing on responsiveness for 21st century learners. Thus, this study will ascertain the responsiveness of higher education in the Philippines for 21st century learners thru a review of several literature and studies, this includes several articles and journals on schools' responsiveness, several best practices of higher education institution and the challenges and opportunities on schools' responsiveness to 21st century learners. This literature review will guide the researcher in understanding the nature of the proposed study. The focus is on best practices of schools related to the skills of teachers in the 21st century and the employability of their graduates if possible, the student achievement and the limitations that both learners and teachers encountered. This serves as a basis for the researcher to formulate a development action plan to address the current status and define future prospects for what needs to be improved to address the issues and adopt best practices to improve the responsiveness of the 21st century learners in the country.

2. Responsiveness of Higher Education Institution for 21st Century Learners

2.1 Responsiveness of the Higher Education Institution System

Articles examining the responsiveness of higher education institutions include the Assessment and Teaching of 21st Century Skills (ATC21S) project, launched in 2009 by multinationals Cisco, Intel and Microsoft to improve 21st century skills define and develop ways of evaluating them. After examining related research projects and existing national curricula around the world, ATC21S produced an overview of ten skills divided into four main categories:

Mindsets, Ways of Working, Tools to Work and Living in the World. Binkley et. al. (2012) explains that there have been some difficulties in defining characteristics that should be included in the knowledge, skills or attitudes, values and ethics of each skill. In this study, items from the different categories are used depending on their relevance to the study.

Another article was presented by Gonzalez-Peres (2021), which analyzes which components of Education 4.0 have been considered in 21st century competency frameworks and identifies the teaching and learning methods and the main stakeholders involved. A systematic literature review (SLR) was conducted with research questions to highlight studies addressing the 21st century framework worldwide, identifying which teaching and learning strategies contain 4.0 components, their learning dimensions and target groups be addressed. The results revealed the lack of these frameworks for teachers and schools, most of which are student-focused. This work presents studies incorporating innovative educational practices and the core components of Education 4.0, and concludes with a reflection on the creation of educational models to develop complex reasoning skills and auto-systems thinking.

Rapid technological advances in the 21st century are forcing teachers to change their behavior and way of thinking. To integrate technology and education, the blended learning model is the right approach. This model combines online instruction and the classroom to enhance student interaction anytime, anywhere. Technology has brought about profound changes in the education system and improved the digital skills of students and teachers. Educators need to understand and use technology in learning activities to create a dynamic learning environment (Dakhi, 2020). van Schalkwyks (2010) proposes a typology of responsiveness to reduce interpretive ambiguity and provide a framework for assessing the extent to which responsiveness is likely to be institutionalized in higher education. The results suggest that the typology can be used to gain insights into the way responsiveness is manifested in universities. However, the process is incomplete as the academic cores of higher education systems remain slow to embrace the demands of more responsive universities.

On the other hand, the spread of the COVID-19 pandemic gripped turbulent events worldwide, transforming not only the economy and healthcare, but also education at all levels, in all countries and for all people. The impact on primary, secondary and tertiary education was rapid, leaving colleges to fend for themselves. In the United States, learning in the traditional classroom has shifted overnight to online-only learning. Quezada et al. (2020) detailed how a California liberal arts college and its graduate teacher training program prepared its faculty for this significant transition to a different educational environment and teaching methods in response to COVID-19. The faculty has shown resilience to the forthcoming changes in distance/online teaching models. The data identified five themes: technology-based instructional strategies; technology-based support office advice; Alternative technology-based course assessments; feedback to improve learning and teaching; and social-emotional engagement in the coursework, as well as supporting the clinical placements that have proven essential in the transition to distance/online learning.

2.3 Best Practices on Schools' Responsiveness for 21st Century Learners

Pérez-Sanagustn (2022) conducted a study to analyze the transformation of teaching and learning practices during the pandemic lockdown. The PROF-XXI framework proposed a set of competencies that institutions can take as a reference to develop their actions and strategies. The results showed that most institutions had training plans for teachers before the pandemic, but other initiatives were created to reinforce them.

Best practices, includes assessment of performances, Rosella Moya-Torrecampo's (2020) case study of a two-month holistic academic, psychosocial and logistics intervention in a Philippine Tertiary Classroom found that grammar performance showed some significance, Natural language collocation and initial final methods of error analysis indicated reduction in usage errors, and Critical Narrative Analysis revealed students' emergent drive towards values, actions and goals associated with leadership. The intervention could result in success in mainstream English and communication courses.

Zuniga-Tonio (2021) pointed out that the COVID-19 pandemic has prompted the higher education system of the Philippines to adopt flexible learning as a delivery model. This study examines the potential and acceptance of Google Classrooms as a tool to support flexible language learning and teaching. A survey questionnaire was given to 44 university students who had completed the Purpose Communication course. The results showed that Google Classroom can provide accessibility, usefulness and satisfaction for students. Qualitative-inductive analysis found that Google Classroom supports flexible language learning through easy monitoring of assignments, assignments, projects, and announcements, excellent storage of study materials, motivates students to manage their time, and motivates students to perform well. As such, Google Classroom has the potential to help deliver flexible language teaching and learning effectively, provided there is teacher guidance.

2.3 Challenges and Opportunities on Schools' Responsiveness

Hamzah (2020)'s study *The Response of Higher Education Institutions to Global, Regional, and National Challenges* states that higher education is challenged by the dynamics of the global and local socio-economic influencing our lives, economy, environment, and lifestyle. This paper showcases the University of Bahrain's Transformation Plan 2016–2021, which is inspired by the Bahrain Economic Vision 2030, aligned to the National Higher Education Strategy 2014–2024, and the National Research Strategy 2014–2024, and in alignment with the national endeavors to achieve the United Nations Sustainable Development Goals 2030.

In this mixed-methods case study, Canez (2018) explored the benefits of 21st-century learning practices that addressed the four Cs and students' perceptions of their motivation. The data collection took place in two phases on the basis of data collection instruments. The two research questions underlying the study were: What is the impact of learning in the 21st century on the development of the four Cs? and What factors do 21st-century learning environments influence student motivation to engage in learning activities? Results showed a positive impact on students through the implementation of the four Cs skills through the use of technology, a project-based learning activity, and performance-based assessments. Additionally, the results showed that students were more engaged when using 21st century learning practices, motivated by group and pair work, classroom choices, personalized learning, and new challenges.

Focusing on the characteristics of those teachers who are currently adopting the Framework for 21st Century Skills as studied by Vial (2010), the author attempts to understand that by developing standards for teachers and students in the 21st century, many schools have started the reform process to introduce changes to address these new skills. Some teachers have succeeded in bringing about change in their teaching, but others have not. The study was conducted in one Southeast North Carolina elementary school and identified six reoccurring themes as obstacles in implementation. Results showed that many, if not all, participants believe in the reform change, but only some are putting these standards into practice in their classroom. Obstacles evaluated included lack of understanding and basic skills, lack of resources and time,

pressure with high-stakes testing, and lack of parent, student, and teacher buy-in and support. The research sought to identify the knowledge, importance, and ability of school-based agriculture education teachers to teach 21st century skills in the classroom. Results showed that agriculture teachers nationwide find 21st century skills to be important, but they are less knowledgeable and able to teach them. Professional development is needed to increase teacher's knowledge of and ability to teach 21st century skills, and with the application of 21st century skills in the school-based agricultural education classroom, students will become better prepared to enter the workforce or higher education upon graduating high school.

3. Conclusion

The ultimate goal of this review is to discuss the responsiveness of higher institutions to the needs of 21st century learners. Through this review, the researcher was able to determine the responsiveness of the higher education system. The Assessment and Teaching of 21st Century Skills (ATC21S) project was launched in 2009 to improve 21st century skills. An overview of ten skills has been created, divided into four main categories: ways of thinking, ways of working, tools for working and living in the world. Gonzalez-Peres (2021) conducted a systematic literature review to identify teaching and learning strategies that include 4.0 components. To integrate technology and education, the blended learning model is the right approach. Technology has brought about profound changes in the education system and improved digital competences, while Van Schalkwyks (2010) proposes a typology of responsiveness to reduce interpretative ambiguity and provide a framework for assessing the extent to which responsiveness is institutionalized in higher education is. In response to the COVID-19 pandemic, learning in the traditional classroom has shifted to online-only learning overnight. Quezada et al. (2020) identified five themes: technology-based instructional strategies, technology-based guidance from support offices, alternative technology-based course assessments, feedback to improve learning and teaching, and socio-emotional engagement.

Some of the best practices of most higher education institutions in responding to the needs of 21st century learners. Prez-Sanagustn (2022) conducted a study to analyze the change in teaching and learning practices during the pandemic lockdown. The case study by Rosella Moya-Torrecampos (2020) found that grammar achievement showed some importance, natural language collocation and initial definitive methods of error analysis indicated a reduction in application errors, and critical narrative analysis indicated an emerging urge for values and action in students and goals related to leadership. Zuniga-Tonio (2021) pointed out that the COVID-19 pandemic has prompted the higher education system of the Philippines to adopt flexible learning as a delivery model. Google Classrooms has the potential to enable flexible language teaching and learning effectively, provided there is teacher guidance.

Several challenges and opportunities related to schools' response to 21st century learners have been identified. These include the benefits of 21st-century learning practices that address the four Cs and students' perceptions of their motivation, as explored by Hamzah (2020) and Canez (2018). The study showed that the use of technology, a project-based Learning activity and performance-based assessments had a positive impact on students. Additionally, students were more engaged when using 21st-century learning practices, motivated by group and pair work, lesson choice, personalized learning, and new challenges. Vial (2020) examined the characteristics of teachers adopting the 21st-century competency framework, which contributes to the barriers to implementation, such as parent, student, and teacher approval and support.

Professional development is required to improve teachers' knowledge and ability to teach 21st century skills.

Based on the provided literature and studies, the identified gap is the lack of comprehensive research and studies focusing on the education system and the responsiveness of higher education institutions to the needs of 21st-century learners. While there have been some studies exploring aspects of responsiveness, such as teaching and learning strategies, the use of technology, and the impact of the COVID-19 pandemic on education, there is a need for more extensive research that brings together the findings from different studies and provides a holistic understanding of how higher education institutions can effectively respond to the needs of 21st-century learners. Additionally, there is a lack of research on the specific challenges and opportunities faced by schools in terms of responsiveness, including factors such as teacher skills, technological infrastructure, and the availability of resources. However, one of the downside of this paper is that it relies on information from research from previous studies and articles, only few studies have focused on the education system and responsiveness of higher education institutions in underdeveloped and third world countries, not a sufficient study to discuss how higher education institutions intend to respond to 21st century learners, which may differ from actual information, this can be achieved by conducting surveys and interviews with participating students, teachers and administration.

Therefore, the researcher's goal is to assess the responsiveness of aviation schools in the Philippines, specifically in Region 1 and in the NCR Region, using a mixed-method research design that employs the exploratory sequential method, and in particular to identify the factors influencing these aviation schools' responsiveness in the chosen locale with an emphasis on the teaching staff's skills, responsiveness to technology, and responsiveness to resources, as well as to identify the challenges and opportunities. Further research in these areas would contribute to the development of best practices and strategies for higher education institutions to enhance their responsiveness and better prepare students for the demands of the 21st century.

Future research studies should examine the actual input from students, teachers, administration and stakeholders. In addition, specific short- and long-term goals and plans should be included to put future research studies into context. Because of the temporal impact on the actual situation of the education system in responding to 21st century learners, it is worth examining factors affecting implementation.

References

- Brown, M., Altrichter, H., Shiyan, I., Rodríguez Conde, M. J., McNamara, G., Herzog-Punzenberger, B., ... & Sánchez, L. (2022). Challenges and opportunities for culturally responsive leadership in schools: Evidence from Four European countries. *Policy Futures in Education*, 20(5), 580-607.
- Canez, D.(2018) 21st Century Learning Practices: A Case Study of Student Response and Motivation in the Classroom. California State University San Marcos.
- Chatterton, P., & Goddard, J. (2000). The Response of Higher Education Institutions to Regional Needs. *European Journal of Education*, 35(4), 475–496.
<http://www.jstor.org/stable/1503633>

- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1-20.
- Kerr, C. (2001). High education cannot escape history (C. X. Wang, Tans.). Hangzhou: Zhejiang Education Press.
- Cacheiro-Gonzalez, M. L., Medina-Rivilla, A., Dominguez-Garrido, M. C., & Medina-Dominguez, M. (2019). The learning platform in distance higher education: Student's perceptions. *Turkish Online Journal of Distance Education*, 20(1), 71-95.
- Dakhi, O., JAMA, J., & IRFAN, D. (2020). Blended learning: a 21st century learning model at college. *International Journal Of Multi Science*, 1(08), 50-65.
- González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: systematic review. *Sustainability*, 14(3), 1493.
- Greenhill, V (2010). 21st Century Knowledge And Skills In Educator Preparation. Retrieved from <https://files.eric.ed.gov/fulltext/ED519336.pdf> April 10,2023
- Hamzah, R.Y. (2020). The Response of Higher Education Institutions to Global, Regional, and National Challenges. In: Burgos, D. (eds) *Radical Solutions and Open Science. Lecture Notes in Educational Technology*. Springer, Singapore. https://doi.org/10.1007/978-981-15-4276-3_11
- Kim, S., Raza, M., & Seidman, E. (2019). Improving 21st-century teaching skills: The key to effective 21st-century learners. *Research in Comparative and International Education*, 14(1), 99-117.
- Liesa-Orús, M., Latorre-Coscolluela, C., Vázquez-Toledo, S., & Sierra-Sánchez, V. (2020). The technological challenge facing higher education professors: Perceptions of ICT tools for developing 21st century skills. *Sustainability*, 12(13), 5339.
- Moya-Torrecampo, R. (2020). Responsive and Inclusive Education in the New Normal: A Case Study of Adaptive Curriculum Implementation in a Philippine Tertiary Classroom.
- Pérez-Sanagustín, M., Kotorov, I., Teixeira, A., Mansilla, F., Broisin, J., Alario-Hoyos, C., ... & Gonzalez Lopez, A. H. (2022). A Competency Framework for Teaching and Learning Innovation Centers for the 21st Century: Anticipating the Post-COVID-19 Age. *Electronics*, 11(3), 413.
- Reyes-Chua, E., Sibbaluca, B. G., Miranda, R. D., Palmario, G. B., Moreno, R. P., & Solon, J. P. T. (2020). The status of the implementation of the e-learning classroom in selected higher education institutions in region IV-A amidst the COVID-19 crisis. *Journal of Critical Reviews*, 7(11), 253-258.
- Stoessel, J. W. (2016). "Responsiveness' in American Higher Education: The Evolution of Institutional Governance Structures." *Inquiries Journal/Student Pulse*, 8(02). Retrieved from <http://www.inquiriesjournal.com/a?id=1346>
- Wood, R., & Shirazi, S. (2020). A systematic review of audience response systems for teaching and learning in higher education: The student experience. *Computers & Education*, 153, 103896.

- Quezada, R. L., Talbot, C., & Quezada-Parker, K. B. (2020). From bricks and mortar to remote teaching: A teacher education program's response to COVID-19. *Journal of Education for Teaching*, 46(4), 472-483.
- Yang, Q., Shen, J., & Xu, Y. (2022). Changes in international student mobility amid the COVID-19 pandemic and response in the China context. *Fudan Journal of the Humanities and Social Sciences*, 1-18.
- Vial, L. (2010). *Teaching in the 21st Century*. Watson School of Education University of North Carolina Wilmington
- van Schalkwyk, F. (2010). *Responsiveness and its Institutionalisation in Higher Education*. University of the Western Cape.
- Zuñiga-Tonio, J. (2021). Google Classroom as a tool of support for flexible learning in the new normal. *Journal of Education, Management and Development Studies*, 1(2), 25-39.

Author(s)

Roger A. Martinez, Jr. holds a Doctor in Business Administration and a License Professional Teacher and the Vice-President for Academic Affairs. He is currently working on the research study on the responsiveness of the higher education institution to 21st century learners in their locality.

Student Pilots' Flight Performance: Learner Self-Assessment, Debriefing, and Approaching the Debriefing Session

Julian Gabriel D. Tinapay^{*}, Allen Carlo M. Pilotin Jeric B. Abari

College of Aviation, WCC Aeronautical & Technological College Inc.

Binalonan, Pangasinan, Philippines

*Email : phca@wccaviation.com.ph

Abstract

The ultimate goal of this review is to discuss the learner self-assessment and its applicability to the debriefing session done in flight training. This review assesses concepts surrounding self-assessment, debriefing, and the approaches of debriefing, specifically whether the Learner-Centered Grading Debriefing Approach will demonstrate better performance in task management and single-pilot resource management-related skills than those debriefed using the traditional strategy. This review hopes to shed some light on studies that were performed that examine the impact of learner self-assessment in the field of aviation and others.

Keywords : Learner self-assessment, Debriefing, Flight Training

1. Introduction

An integral part of training, or any teaching and learning experience, for that matter, is assessment (FAA, 2020; Oyinloye & Imenda, 2019). An assessment is defined as a process for documenting, in measurable terms, the knowledge, skills, attitudes, and beliefs of the learner (Capraro, Roe, Caskey, Strahan, Bishop, Weiss, & Swanson, 2011) It provides the instructor with feedback with the quality of instruction and with the evaluation made by the instructors, they will then be able to provide guidance, suggestions for improvement, and positive reinforcement. (FAA, 2020) According to Kershner (1974), flight training has three parts: preflight briefing, inflight instruction, and postflight review. Assessments of the flight performance are done in the post-flight review (which may also be coined as briefing, debriefing, or assessment). Such assessments are vital for flight training, as according to the FAA (2020), they provide “critical information to both the instructor and the learner,” (p. 6-1) and “a well-designed and effective assessment provides an opportunity for self-evaluation that enhances the learner's aeronautical decision-making and judgment skills.” (p. 6-1) The Aviation Instructor's Manual (2020) states that a collaborative postflight assessment includes two parts the learner self-assessment and a detailed assessment by the flight instructor. The purpose of the former is to “stimulate growth in the learner's thought process and, in turn, behaviors,” (p. 9-12) while an in-depth and collaborative discussion is made by comparing the flight instructor's assessment with the learner's self-assessment. Through the collaborative discussion made between the instructor and the learner, they jointly determine the progress of the learner. The improvement could then be recorded on a rubric as part of the training program. A rubric is a multi-purpose scoring guide for assessing student products and performances (Wolf & Stevens, 2007). It is composed of dimensions for judging the performance of the learner, a scale for rating performances on each dimension, and the standards of excellence for specified performance levels (FAA, 2020).

Despite published literature from the Federal Aviation Administration [FAA] in the United States encouraging the practice of learner self-assessment in debriefing sessions for flight training, such practices are not being done in most Approved Training Organizations in the

Philippines, commonly opting for the Traditional or Instructor-led method. There are multiple studies that have tackled self-monitoring during debriefing (Blickensderfer et al, 1997; Nietfeld & Schraw, 2002, Schraw & Moshman, 1995; Smith-Jentsch et al., 1998). However, such studies are not very common and there only tends to be a handful of them. Thus, this review paper is aimed to discuss further the learner self-assessment and its applicability to the debriefing session done in flight training. This topic is worth examining as practices of self-assessment could help student pilots learn, even long after the presence of their flight instructor.

2. Student Pilots' Flight Performance: Applying Learner Self-Assessments during the Debriefing Session

2.1 Self-Assessment

Self-Assessment is defined by McMillan and Hearn (2008) as a process by which pupils 1) keep an eye on and assess the caliber of their thinking and 2) Identify tactics to increase their learning behavior and knowledge and abilities. In other words, self-assessment happens when students evaluate their own work in an effort to improve performance by noticing gaps between their current and intended performance. They believe that self-assessment is a critical skill that enhances student motivation and achievement. Similarly, Gehringer (2017) also stated that self-assessment is an effective tool for improving learning. It motivates students to consider whether their own work satisfies the objectives set for learning concepts and abilities.

However, Gehringer (2017) added that self-assessment may not be reliable when students do not understand the material. Also, Blickensderfer (2007) expressed that novices in a domain tend to overestimate their performance largely and experts slightly underestimate their knowledge. A study by Maki et al (2005) supports this in which the study's findings demonstrated that low-ability students tended to exaggerate their confidence, particularly when predicting how well they would perform on the examinations. High-ability students lacked confidence, particularly in their assessments of their post-test confidence. To put it differently, precision did not foresee performance. Another study by Tejeiro et al. (2012) stated that students' and professors' assessments are frequently very similar when self-assessment does not count toward the final grade; nevertheless, when self-assessment does contribute toward the final grade, over and underestimations drastically increase. The two leading causes identified are the pressure to achieve the most excellent grades and the stress of self-assessment.

Despite the inaccuracies that may come along with self-assessment, two meta-analyses by Graham et al. (2015) and Sanchez et al. (2017) show a positive association between self-assessment and learning. Their studies suggest that students who engaged in self-grading performed better on later tests than others who did not. Furthermore, a critical review made by Andrade (2019) states that self-assessment is most beneficial in terms of both achievement and self-regulated learning, but only when it is used as a formative assessment and that students must also be supported through training, which is supported by Schraw (1997) who stated that, "Metacognitive strategies do not appear to be spontaneously generated, but rather evolve through developing domain-specific monitoring experience or through training"

2.2 Debriefing

According to Brett-Fleeger et al. (2012), debriefing is a "facilitated conversation after such things as critical events and simulations in which participants analyze their actions, thought processes, emotional states, and other information to improve performance in future

situations”(p.288-289) In addition, Smith-Jentsch et al., (2001) state that debriefing can be used for self-correction, which includes role clarification, self-evaluation of task strategies, planning, and goal setting. Johns et al. (2017) stressed that a debrief is much more than just a brief summary of the essential points and topics from the class. The debrief is a critical element of experience-based learning. In addition, a well-executed debrief will help students glean valuable lessons from the experience, even when an experiential learning activity does not go as planned (Nicholson, 2012).

The facilitator has a considerable role to play in the debriefing process. According to Fanning and Gaba (2007), facilitators have an ethical responsibility to create a secure, private environment for facilitation; the facilitator in simulation-based learning has an ethical responsibility to establish the parameters within which behavior will be analyzed in an effort to safeguard participants from experiences that could seriously harm their sense of self-worth. In the same paper, they mentioned that training in facilitation is vital since the skill of the debriefer is paramount in ensuring the best possible learning experience. Finally, they mentioned that the facilitator must always be aware of the vulnerability, show respect for it, and create an atmosphere that encourages freedom of expression and gives room for errors. Blickensderfer (2006) also added that to improve the effectiveness of the debrief, the facilitator should show that they are genuinely interested in the observations of the team by pausing and making eye contact with all team members after asking a question. They should ask specific, open-ended, and behavioral questions before offering their own critique.

Debriefing has been widely used in multiple industries. They include the military, first responders, education, healthcare, and aviation (Belote, 2015) According to Kershner (1974) a flight lesson must include the preflight briefing, inflight instruction, and postflight review, and if any of these are missing, the lesson is deemed incomplete. The FAA (2020) stated that it's crucial for the flight instructor to notify the learner of their development as they evaluate their piloting skills. This can be done as each step or maneuver is finished, or it can be done in summary during postflight debriefs. To help the flight instructor cover all topics brought up during the flight or session, postflight critiques should be provided in writing, such as notes. Flight instructors have historically provided explanations for faults in performance, highlighted the areas where the shortcomings were thought to have originated, and, if possible, recommended suitable corrective actions.

2.3 Traditional Assessment/Instructor-led method and Learner-Centered Grading

There are multiple methods to approach a debriefing session. One of them is the Traditional Assessment/ Instructor-led Method. Traditional Assessment, or Instructor-led, is where the leader or instructor informs the participants what went right and wrong. Instead of being student-led, it is conducted in lecture format, where participants passively receive the information rather than actively contributing to the conversation. It frequently involves several people and takes the shape of a general conversation (Belote,2015)

Another method for approaching a debriefing session is through Collaborative Assessment or Learner-Centered Grading. Collaborative assessment includes two parts—learner self-assessment and a detailed assessment by the flight instructor. The purpose of the self-assessment is to stimulate growth in the learner’s thought processes and, in turn, behaviors. The self-assessment is followed by an in-depth discussion between the instructor and the learner which compares the instructor’s assessment to the learner’s self-assessment. (FAA, 2020)

The aviation industry is constantly evolving. The rapid development of new aviation technologies and products has introduced new challenges. Pilot training is one such challenge. The training required for both new and experienced pilots must be developed to result in less training time and cost (FAA-Industry Training Standards) (FITS) 2003 Program Plan). The Federal Aviation Administration (FAA) developed a training program called FAA/Industry Training Standards (FITS) in response to the rapid pace of development and its significant impact on aviation training and passenger and crew safety. The FITS approach employs a scenario-based training strategy. Flight training takes the form of realistic scenarios. Following each flight scenario, the FITS method employs the concept of "learner-centered grading" (LCG). LCG consists of two parts: learner self-assessment and a detailed instructor debrief. The self-assessment is intended to stimulate growth in the learner's thought processes and, as a result, skill acquisition. The self-evaluation is followed by an in-depth discussion between the instructor and the student in which the instructor's ratings are compared to the student's self-assessment. As a result, the debriefing process shifts from an instructor-led performance critique to a student-led and instructor-facilitated analysis of the student's performance. An empirical study was then performed by Blickensderfer and Jennison (2006) whether the Learner-Centered Grading Debriefing Approach will demonstrate better performance in task management and single-pilot resource management-related skills than those who were debriefed using the traditional strategy. The study found that for skills linked to task management and single pilot resource management, the learner-centered grading method of instructional debriefing proved to be generally more effective than the traditional style. Although there are additional abilities required for flight in addition to these, it is likely that the findings will apply to learning other cognitively oriented flight skills (Blickensderfer & Jennison, 2008).

3. Conclusion

The ultimate goal of this review is to discuss the learner self-assessment and its applicability to the debriefing session done in flight training. Through this review, the researchers were able to determine concepts relating to self-assessment. It is clear from the mentioned related literature and studies that self-assessment is beneficial to a learner. There may be problems encountered with consistency mentioned by Gehringer (2017), Blickensderfer, Maki et. al (2005), and Tejeiro et al. (2012). However, the importance of self-assessment lies beyond its accuracy but instead with the positive impact, it brings to the learner. Debriefing became a strategy for experienced-based learning, in which a well-facilitated briefing can give learners valuable lessons from the experience. The facilitator in the debriefing process has a huge role to play and must be aware of the situation that he/she is handling. There are multiple methods for approaching a debriefing session. One is traditional/instructor-led in which the instructor informs the learner of what went right or what went wrong. The learners only receive information and there will be little to no feedback from the learner. Learner-centered grading approach, meanwhile, adds a learner self-assessment together with the instructor's debriefing. An empirical study done about the LCG approach showed that the said approach was more effective than the traditional approach with skills relating to task management and single-pilot resource management.

The main drawback of this paper is the lack of more available studies with regard to learner self-assessment in aviation, with most sources only taken from studies in the USA, particularly the "FITS Instructor Education Research: Examining the Learner Centered Grading Approach", in which some of its findings can be found in the Aviation Instructor's Manual.

There is also a lack of local studies that could have been helpful in having its integration easier for the researchers in their setting. Further studies should examine this topic more and try integrating learner self-assessment during debriefing not only in aviation but also in different industries.

References

- Andrade, H. L. (2019). A critical review of research on Student Self-Assessment. *Frontiers in Education*, 4. <https://doi.org/10.3389/educ.2019.00087>
- Belote, Marisa J., A Comparative Evaluation of the Learner Centered Grading Debriefing Method in Nursing Education (2015). Graduate Theses and Dissertations. <http://scholarcommons.usf.edu/etd/5643>
- Blickensderfer, E. (2007). FY2005 FITS instructor education research: Examining the learner-centered grading approach. Retrieved from http://www.faa.gov/training_testing/training/fits/research/media/lcg.pdf.
- Blickensderfer, E. L. (2007) Learner-centered debriefing in general aviation training: Questions from the field and answers from research. *Proceedings of the 2007 International Symposium on Aviation Psychology, USA*, 07, 45-50.
- Blickensderfer, E. L. & Jennison, J. (2008) Using self-critique to improve general aviation piloting skills: An empirical investigation. *Aviation, Space and Environmental Medicine*, 79(3): 288
- Brett-Fleegler, M., Rudolph, J., Eppich, W., Monuteaux, M., Fleegler, E., Cheng, A., & Simon, R. (2012). Debriefing assessment for simulation in Healthcare. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare*, 7(5), 288–294. <https://doi.org/10.1097/sih.0b013e3182620228>
- Capraro, R. M., Roe, M. F., Caskey, M. M., Strahan, D., Bishop, P., Weiss, C., & Swanson, K. W. (2012). Research summary: Assessment. *Association for Middle Level Education*, 1-6.
- Cook, T. D., & Campbell, D. T. (1979). *Quasi-experimentation: Design & analysis issues in field settings*. Boston, MA: Houghton Mifflin.
- FAA-Industry Training Standards (FITS) Program Plan (2003). Retrieved from: http://www.faa.gov/training_testing/training/fits/
- Fanning, R. M., & Gaba, D. M. (2007). The role of debriefing in simulation-based learning. *Simulation in Healthcare: The Journal of the Society for Simulation in Healthcare*, 2(2), 115–125. <https://doi.org/10.1097/sih.0b013e3180315539>
- Gehringer, E. (2017). Self-Assessment to Improve Learning and Evaluation. In *American Society for Engineering Education*. <https://monolith.asee.org/public/conferences/78/papers/19411/view>
- Graham, S., Hebert, M., and Harris, K. R. (2015). Formative assessment and writing. *Elem. Sch. J.* 115, 523–547. doi: 10.1086/681947
- Goff, E. M. (2013). Effects of instructor continuity on a large-scale pilot training program (thesis).

- Johns, J. A., Moyer, M. T., & Gasque, L. M. (2017). Planning and Facilitating Debriefs of Experiential Learning Activities in Skills-Based Health Education. *Journal of Health Education Teaching*, 8(1), 61–76.
- Kershner, W. K. (1974). *The Flight Instructor's Manual* (2nd ed.). The Iowa State University Press.
- Maki, R.H., Shields, M., Wheeler, A.E., & Zacchilli, T.L. (2005). Individual Differences in Absolute and Relative Metacomprehension Accuracy. *Journal of Educational Psychology*. 97 (4), 723-731.
- McMillan, J.H. & Hearn, Jessica. (2008). Student self-assessment: The key to stronger student motivation and higher achievement. *Educational Horizons*. 87. 40-49.
- Nicholson, S. (2012). Completing the Experience: Debriefing in Experiential Educational Games. In the Proceedings of The 3rd International Conference on Society and Information Technologies. Winter Garden, Florida: International Institute of Informatics and Systemics. 117-121.
- Oyinloye, O. M., & Imenda, S. N. (2019). The impact of assessment for learning on Learner Performance in Life Science. *EURASIA Journal of Mathematics, Science and Technology Education*, 15(11). <https://doi.org/10.29333/ejmste/108689>
- Sanchez, C. E., Atkinson, K. M., Koenka, A. C., Moshontz, H., and Cooper, H. (2017). Self-grading and peer-grading for formative and summative assessments in 3rd through 12th grade classrooms: a meta-analysis. *J. Educ. Psychol.* 109, 1049–1066. doi: 10.1037/edu0000190
- Schraw, G. (1997). The effect of generalized metacognitive knowledge on test performance and confidence judgments. *Journal of Experimental Education*. 65(2), 135-147.
- Schraw, G., & Dennison, R. S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology*, 19(4), 460–475. <https://doi.org/10.1006/ceps.1994.1033>
- Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7(4), 351–371. <https://doi.org/10.1007/bf02212307>
- Smith-Jentsch, Kimberly & Cannon-Bowers, Janis & Tannenbaum, Scott & Salas, Eduardo. (2008). Guided team self-correction: Impacts on team mental models, behavior, and effectiveness.. *Small Group Research*. 30. 303-327.
- Tejeiro, R. A., Gomez-Vallecillo, J. L., Romero, A. F., Pelegrina, M., Wallace, A., and Emberley, E. (2012). Summative self-assessment in higher education: implications of its counting towards the final mark. *Electron. J. Res. Educ. Psychol.* 10, 789–812.
- United States Department of Transportation, Federal Aviation Administration, Flight Standards Service Airman Testing Standards Branch. (2016). *Airplane Flying Handbook*.
- United States Department of Transportation, Federal Aviation Administration. (2020). *Aviation Instructor's handbook*.
- Wolf, K., & Stevens, E. (2007). The Role of Rubrics in Advancing and Assessing Student Learning. *The Journal of Effective Teaching*, 7(no. 1), 3–14. Retrieved October 28, 2022, from <https://files.eric.ed.gov/fulltext/EJ1055646.pdf>.

Author(s)

Julian Gabriel D. Tinapay is currently a student studying for the course of Bachelor of Science in Aviation, Majoring in Commercial Flying at WCC Aeronautical and Technological College. He currently holds a Private Pilot License in the Philippines and is ongoing in his flight training.

Allen Carlo M. Pilotin is currently a student studying for the course of Bachelor of Science in Aviation, Majoring in Commercial Flying at WCC Aeronautical and Technological College. He currently holds a Private Pilot License in the Philippines and is ongoing in his flight training.

Jeric B. Abari holds a Master's in Business Administration and is a graduate of the course of Bachelor of Science in Aviation, Majoring in Commercial Flying at WCC Aeronautical and Technological College. He currently holds a Commercial Pilot License in the Philippines and is currently the Program Head of the College of Aviation of his undergraduate institution.

Analyzing the Linguistic Features of Peppa Pig and its Role in the Language Development of Young Viewers

Princess H. Policarpio^{*1}, Cherryl L. Campos¹, Cynthia G. Dela Rosa¹, Jonathan R. Carreon²

¹Graduate School, Angeles University Foundation, 2009, Angeles City, Philippines

²Huachiew Chalermprakiet University, Samutprakarn, Thailand

*Email : policarpio.princess@auf.edu.ph

Abstract

The controversy surrounding Peppa Pig has sparked discussions and raised concerns among parents of young viewers of the animated show. Previous studies have indicated that the show portrays instances of pain, brutality, and violence, which can be alarming for some. However, there is also a promising perspective where some studies have reported that Peppa Pig could serve as an effective English as a Foreign Language (EFL) teaching tool for early language learners. It is suggested that the show should be incorporated into the teaching process by content and curriculum creators.

This study aims to analyze a corpus of 166 episode transcripts of the animated series Peppa Pig, comprehensively extracting and examining the linguistic features present within them. The findings of this study will make a valuable contribution to our understanding of language development in this digital age.

Keywords : Peppa Pig, Linguistic Features, Language Development and Digital Age

1. Introduction

One of the different types of audio-visual stimulation that affects children's language development is watching videos on YouTube. Both adults and children can enjoy the diverse range of entertaining audio-visual content available on the platform. Children particularly prefer videos featuring child characters and music, and they have the freedom to watch and re-watch these videos as many times as they desire (Handayani et al., 2021). The proliferation of educational animated videos on YouTube has a significant impact on behavior and the language learning process, and one of the most popular among these animated series is Peppa Pig.

Peppa Pig is a British preschool animated television series directed and produced by Astley Baker Davis in association with Entertainment 1, which originally aired on 31 May 2004. To date, six seasons have been completely aired, with a 7th currently airing. The show is aired in 180 countries (Vaidyanathan, 2010) and has received many awards. This show has five-minute-long episodes, which are ideal for young children who have short attention spans. However, it went on a hiatus for just two years before re-premiering on 14 February 2015.

Moreover, the Peppa Pig show was banned from a popular TikTok site in China due to some words used in the said program were associated with counterculture memes and used the term “social people,” which was a slang term for “low lives and gangsters” (Hearn, 2020). While in Australia, Peppa’s one of the episodes was recently taken out from the viewing schedule titled “Mr. Skinny Legs” because the episode alluded that spiders are not dangerous. Australia is home to a plethora of lethal arachnids, and Peppa Pig failed to examine the background of a certain country due to some simple usage of words (Stern, 2018). These are just a few of some controversial episodes of Peppa Pig in the mainstream.

On the other hand, the show's heroine is a 5-year-old female pig (Peppa) whom we see with her family and friends in their everyday lives, dealing with real-life problems. “Peppa’s world reflects very closely the reality of a small child” (Scheffler, 2015 p. 15), which is why children can relate to it and can easily associate new words with their everyday experiences. The rare feature of Peppa Pig is that its lead character is a female but does not adopt the stereotypical role of women (Prosic-Santovac, 2017). On the contrary, it supports equality between men and women and presents a different role of women in society (Alexiou & Kokla, 2019b).

Peppa Pig can be an effective EFL teaching tool for early language learning and, in particular, for formulaic language acquisition, and it should be incorporated into content and curriculum creators (Kokla, 2021). However, research says there are almost nine incidents of pain, brutality, distorted views of violence, and zero sympathies from other characters (Stolworthy, 2020).

The acquisition of ESL to children in this study is anchored in socio-cultural theory that emerges from two perspectives: cognitive and social development of a learner (Aimin, 2013). Children's social engagement with Peppa pig as their playmate is fundamental in developing both cognitive and emotional impressions of reality. Consequently, this opens a new viewpoint on the process of second language acquisition in which learners are encouraged to think and talk like Peppa; that is to say, language and thinking should be intimately linked to one another to be effective.

Following the above statement, language acquisition should comprise at least three fundamental components: the development of language functions, growth in cognitive abilities, and a fusion of language and thinking. It has been proven in some studies that children are naturally lively and inquisitive, and they do not need persuasion to learn since they are intrinsically driven to explore and learn about everything. Very young learners need a lot of attention and effort in learning a new language. It is important to do actions and follow specific instructions in learning more precise vocabulary, and the acquisition of the target language can be very beneficial for them since they are fundamental to the English language learning process.

Moreover, Peppa pig videos in this situation build on children’s diverse knowledge and imprint enthusiasm into them trying to imitate Peppa as they are continuously exposed in the characters’ manner of speaking as well as the use of words in each episode create repetition patterns in the child’s linguistic development and environment. Children nowadays choose to spend more time in digital media than outdoor play (Clements, 2004). Hence, the exposure time watching Peppa is tantamount to playing outside. Peppa’s episodes are assumed to be the interactive and stimulating cultural environment of the children since they spend more time listening and watching Peppa on TV or YouTube.

Alexiou and Kokla (2019a) conducted a comprehensive linguistic analysis of Peppa Pig, demonstrating that the show contains a mix of familiar and unfamiliar words used in young children's everyday lives. Furthermore, the researchers discovered that this animation has lexical chunks that are regularly repeated throughout and between episodes.

This study examines the linguistic features and language functions present in the animated television series “Peppa Pig” specifically it intends to (1) identify the linguistic features based on absolute frequencies, relative frequencies, and N-grams (2) describe and thematize the frequently used keywords, and (3) explain its role in the language development process.

2. Data and Methodology

Data

The subject of the study is the in-demand Peppa Pig children's animated television show. Peppa Pig has shown various animated television series directed and produced by Astley Baker Davis in association with Entertainment 1, which originally aired on 31 May 2004. It went on a hiatus for just two years before re-premiering on 14 February 2015. To date, six seasons have been thoroughly aired, with a 7th currently airing. As of March 2019, Peppa Pig has a total of 277 episodes. Each season usually has 52 episodes. The show is aired in 180 countries (Vaidyanathan, 2010) and has received many awards. This show has five-minute-long episodes, which are ideal for young children who have short attention spans—this study comprised 166-episode transcripts from 277 episodes, with the most viewed on YouTube. A total of 73,239-word tokens were processed by AntConc, with 3171-word types to examine the linguistic features of the words being used in the said children's program.

Methodology

This study employed discourse analysis to analyze the transcripts of the animated series Peppa Pig and comprehensively extract the linguistic features present on it. According to Johnson & McLean (2020), discourse analysis is an adaptable and iterative method of analyzing different items in repetitive sequences. Moreover, discourse analysis attempts to create a strong interpretation about particular issues, domains, or themes in linguistics. To do this research, this study adapted the framework of Waitt (2005) in conducting discourse analysis. The following steps are (1) Collecting data and building the corpus, (2) coding and identifying key themes, (3) investigating between the texts, and (4) recognizing inconsistencies.

The current study collected a corpus of transcripts from the most viewed episodes of Peppa Pig on YouTube. These transcripts were processed using Antconc to capture the total number of wordlists, word types, and the most frequently used words uttered by the characters, which were then grouped into themes. Additionally, this analysis examines how these frequent words were used in the context of the dialogue, including where and when they were uttered, as well as how they were formed.

During this analysis, the researchers employed an iterative approach. Four raters were involved in identifying the keywords and grouping them into themes to ensure the reliability of the results. Based on the investigation, the researchers derived implications from these utterances.

3. Results

The corpora of Peppa Pig

From the data analysis, it was found that there were seventy-three thousand, two hundred thirty-nine (73, 239) word tokens in the corpus of 166 most viewed episodes of the Peppa Pig. Three thousand one hundred seventy-one (3171) word types were used by the main characters in the said TV program.

1. Absolute Frequencies

Table 1 Top 10 words with highest absolute frequencies in the corpora

Rank	Frequency	Word
1	4255	pig
2	2685	Peppa
3	2318	the
4	1672	daddy
5	1557	i
6	1515	you
7	1466	s
8	1465	and
9	1428	a
10	1391	to

The finding on the reflected table shows the top 10 highest frequencies in the corpora of the animated children's program Peppa Pig from 166 episodes. The common noun word "pig" has been frequently used in the findings rather than the proper noun name "Peppa." Looking at this data, all episodes mention the words Peppa and pig to reinforce the viewers to remember the main character of the program by always mentioning and emphasizing these two highest corpora. While the definite article "*the*" with a frequency of 2318 was commonly mentioned and mostly preceded a noun to emphasize that the reader is aware of the word's identity, the indefinite article "*a*" is at the second least rank on frequently used words in the said program to emphasize a noun or an adjective before the noun. The least frequently used word for the highest top 10 words in Peppa pig is the word "to"; here, the word was used as a preposition together with the indefinite article "*a*" such as "*to a crater, to a little tree, etc.*" It only proves that the top 10 highest frequency words are mostly metalinguistic features that analyze the use of determiners, nouns, and "*to*" as a preposition which can be used to communicate a multitude of different ideas.

2. Relative Frequencies

Table 2 Top 20 keyword list with highest relative frequencies in the corpora

Rank	Frequency	Keyness	Effect	Keyword
1	4255	+3659.46	0.1098	pig
2	2685	+2298.83	0.0707	Peppa
3	2318	+1965.05	0.0614	the
4	1672	+1408.56	0.0446	daddy
5	1557	+1309.95	0.0416	i
6	1515	+1273.97	0.0405	you

Rank	Frequency	Keyness	Effect	Keyword
7	1466	+1232.01	0.0392	s
8	1465	+1231.16	0.0392	and
9	1428	+1199.49	0.0382	a
10	1391	+1167.85	0.0373	to
11	1191	+997.04	0.032	is
12	1187	+993.63	0.0319	George
13	1122	+938.21	0.0302	it
14	1091	+911.8	0.0292	mummy
15	832	+704.9	0.0225	narrator
16	706	+584.72	0.0191	we
17	614	+506.85	0.0166	in
18	580	+478.1	0.0157	are
19	542	+445.99	0.0147	can
20	487	+399.55	0.0132	t

Table 2 shows the top 20 words with the highest relative frequencies of the corpora. The absolute frequency of the corpora was compared against the frequency in the spoken language of the British National Corpus (BNC) using log-likelihood. The BNC contains 100 million words from the late twentieth century's spoken and written languages. The BNC spoken section was used as a reference corpus because it comprises transcriptions, casual discussions, and spoken languages from various contexts like corporate meetings, media, and radio shows. Comparing the two corpora will convey common linguistic patterns and produce more accurate results.

Surprisingly, twelve from the top 20 keyword list of the Peppa Pig corpora (*The, i, you, s, and, a, it, is, we, in, to, t*) are also present in the top 20 spoken list of BNC. The articles *the* and *a*, and pronouns *I, you, we, and it* were commonly used in the transcript. The articles were used to indicate identity, for example: "**The** Big Bad Wolf is pretending to be Grandma."; "**The** police drive cars."; and "my sister's having **a** baby!" On the other hand, pronouns were used to emphasize various personalities of the characters, such as "**I** am a beautiful swan"; "**I** am a clever parrot"; "**I** like cookies"; "you **are** tiny"; "**are you** a pussy cat?", "**We** all had fun today", and "**He** can fix it!"

Aside from the prepositions *in* and *to* which show spatial relationships and locations like "Are they in a crater?" and "We buried it next to a little tree. One of the highlights is the usage of apostrophe S. 'S was used in two forms: It is used to show that something belongs to some characters in the TV program. For example, *Peppa and George are playing in Mummy's and Daddy's bedroom; George, this is the snowman's body; Duck does not want to give Peppa's boots back; and the children love mummy pig's book*. It is also used to show contraction for the word is. For example, *It's George's pop-up dinosaur book; It's going to bang into the bridge!; Sorry, George. It's only mud.*

Top 10 Frequent 2N-Grams

Table 3 The total number of N-Gram Types is 26075 and Total No. of N-Grams Token 73236

Clusters	Frequency	Examples
it s	405	It's a beautiful dress.
i m	324	I'm a butterfly
this is	235	This is a silly game.
peppa and	233	Peppa and George are having a lot of fun.
in the	226	Mummy Pig is looking in the flower bed
and george	214	Peppa and George are going shopping.
don t	200	Don't be silly, Peppa.
pig and	189	Granny Pig and Grandpa Pig are going to babysit.
that's	182	That's an owl.
let's	147	let's clean up quickly

Table 3 reveals the top ten 2-grams in Peppa. The cluster “*it s*” has been frequently used in the corpora as a contraction word of “*it is*” rather than using it as a possessive form of the pronoun. The word “*and*” also emerged in 3 clusters; it was used as a function word to indicate a connection between characters. This clearly shows that the TV program promotes relationships and bonds. Seven words from the top ten 2N-grams in the corpus are also included in the BNC Spoken list, these are *the, and, I, that it, s, and in*. It may be assumed that the frequent utterances in the corpora also exist in a wide range of language registers.

3. Keywords Categorize by Theme

Table 3 lists the Top 50 keywords in the corpus that were categorized into themes. The first theme shows words related to family, the second theme reflects words related to friends, the third theme displays words related to oneself and the last theme reveals words related to activities.

Table 3 Top 50 Keywords categorize by theme

Keywords	Frequency	Keyness	Effect	Example
Words relating to family				
Daddy	1672	1408.56	0.0446	<i>if you made daddy a father's day card...</i>
Peppa	2685	2298.83	0.0707	<i>Peppa and her family are on their way to.. Sorry, Mummy. I was just showing George what not..</i>
Mummy	1091	911.8	0.0294	<i>George and daddy pig are getting ready</i>
George	1187	993.63	0.0319	<i>this is daddy pig</i>
this	467	382.68	0.0127	

Keywords	Frequency	Keyness	Effect	Example
Grandpa	418	341.38	0.0113	<i>Grandpa and Granny are going to be very sad.</i>
Hello	333	269.85	0.0091	<i>Hello, Grandpa Pig. Hello, Granny Pig.</i>
for	366	297.6	0.0099	<i>Daddy Pig has made a birthday cake for Mummy Pig</i>
little	252	201.88	0.0069	<i>my little baby brother and sister really are cute!</i>
the	2318	1965.05	0.0614	<i>I'm the mummy and daddy. You can be the children.</i>
a	1428	1199.49	0.0382	<i>Peppa and George are having a lot of fun.</i>
Words relating to friends				
rabbit	470	385.21	0.0128	<i>Molly Mole and Rebecca Rabbit are best friends!</i>
and	1465	1231.16	0.0392	<i>Peppa and George are playing with Suzy Sheep and Pedro Pony</i>
of	462	378.46	0.0125	<i>Peppa and George are having a lot of fun.</i>
suzy	267	225.5	0.0073	<i>Peppa and Suzy are best friends.</i>
all	344	279.1	0.0093	<i>Her friends join her, they form a circle around her and they all hold hands</i>
your	268	215.29	0.0073	<i>He is your best friend.</i>
there	254	203.55	0.0069	<i>Hello there, my lovelies! I'm Mrs. Badger the Farmer.</i>
re	225	179.27	0.0061	<i>You're very welcome, Mr Dinosaur.</i>
on	389	316.95	0.0106	<i>okay mandy you're on my team</i>
Words relating to oneself				
Pig	4255	3659.46	0.1098	<i>Goodbye, Mummy Pig and Daddy Pig.</i>
i	1557	1309.95	0.0416	<i>I am an expert at French.</i>
s	1466	1232.01	0.0392	<i>Peppa's boat is a sailboat.</i>
is	1191	997.04	0.032	<i>Peppa is admiring herself in the mirror.</i>
yes	459	375.93	0.0125	<i>Yes, I am the best at it.</i>
my	364	295.92	0.0099	<i>This is my best birthday ever.</i>
mr	347	281.62	0.0094	<i>Mr Dinosaur is safe.</i>
m	325	263.13	0.0088	<i>'m a tiny little fairy princess.</i>

Keywords	Frequency	Keyness	Effect	Example
be	279	224.51	0.0076	<i>I want to be a butterfly.</i>
not	261	209.42	0.0071	<i>I'm not a flower! I'm Peppa Pig!</i>
me	243	194.34	0.0066	<i>This is my sweet little brother George. This is Mummy Pig. This is me.</i>
very	228	181.78	0.0062	<i>I'm not very well, Suzy. I have to stay in bed.</i>
t	487	399.55	0.0132	<i>I don't know.</i>
that	475	389.43	0.0129	<i>that's mine.</i>
Words relating to activities				
we	706	584.72	0.0191	<i>we all danced as swans</i>
you	1515	1273.97	0.0405	<i>Can you fix it please,</i>
to	1391	1167.85	0.0373	<i>We'd like to buy a tree, please.</i>
it	1122	938.21	0.0302	<i>You could flip it higher, Mummy Pig.</i>
in	614	506.85	0.0166	<i>Peppa jumping in a puddle</i>
are	580	478.1	0.0157	<i>Peppa and her family are going for a picnic.</i>
can	542	445.99	0.0147	<i>Can I feed her, Mummy Pig?</i>
what	434	354.86	0.0118	<i>What can we do?</i>
have	399	325.37	0.0108	<i>we thought we'd have a picnic in the garden</i>
like	299	241.29	0.0081	<i>George and Richard like playing together.</i>
up	249	199.36	0.0068	<i>Let's clean up quickly before Mummy sees the mess.</i>
has	241	192.66	0.0066	<i>Granny Pig has made the tomatoes, lettuce and cucumber into a salad.</i>
but	224	178.44	0.0061	<i>Peppa loves playing in the wet grass, but she doesn't want to get her new shoes wet.</i>
oh	476	390.27	0.0129	<i>oh but we wanted to jump in muddy</i>
do	333	269.85	0.0091	<i>And I would do all the work.</i>

The first 50 words in the corpus were categorized into themes. The first theme in Table 3 shows words related to family, the second theme reflects words related to friends, the third theme displays words related to oneself and the last theme reveals words related to activities.

Peppa Pig is the century's most renowned children's television character who is a four-year-old female pig who enjoys spending time with her family and friends. The first two themes involve phrases that make clear connections with family and friends. The first to four ranked

words are Daddy, Peppa, Mummy, and George who are the main members of the family in the said children's program. These four characters show a complete member of the family in a society in the character of cute pigs that are popular children's television characters.

Moreover, Peppa Pig's episodes are approximately five minutes in length and feature a very loose, low-stakes plot that typically revolves around Peppa and her family and friends. The discourse analysis proves that the keywords have clear connections on how to show the standard culture and social related conditions that children should acquire when exposed to viewing the program such as the relationship of the siblings to their parents, camaraderie, and the extended family culture where the keyword grandpa got 341.38 keyness rate. It only shows that the word grandpa has a great effect on the cognitive and social development of the viewers and shows the importance of kinship care as a cultural value in extended families is associated with positive child outcomes, based on the keywords reflected in table no. 3.

Words related to oneself are also manifested in Table 3. The word *Pig* has the highest rating that proves the program has reflected B.F. Skinner's operant conditioning is essential for the proper development of language (Brunkow, 2021). Since Peppa pig is considered as part of children's routine, the more often a child hears the word Pig in dialog and content that is being displayed the further it provides language development for a child's sociocultural survival. Nominative pronouns were mostly reflected in the transcripts which shows Peppa's character is focused more on her personal feelings or emotions.

On the other hand, the words relate to activities, where Peppa involves different characters to complete her tasks for the day prove the engaging activities that Peppa enjoys, such as dancing, jumping in the puddle, playing in wet grass, and having a picnic in the garden with her family and friends. These data are reflected in the word relating to activities themes. Vygotsky believed that every aspect of a child's cognitive development is influenced by the social context (Christy, 2013) like playing and other social endeavors such as what Peppa always does in her episodes in which they are raised and educated with the activities reflected in the program. Having an activity for that matter can only be accomplished with the assistance of another individual. Thus, the program Peppa Pig has crafted dialogs and activities with her family and friends to provide assistance for the language development of the child. When a child is immersed in the program, he/she learns a new skill, and the program serves as a mentor that provides scaffolding to aid in the child's learning just like Peppa Pig who is constantly learning new things.

Role in the Language Development

1. *Development of Language Functions*

Some adults were once taken aback by their parents' accounts of growing up without access to television. Giuffre, L. (2015), stated that nowadays, growing up without television was not only unusual but cruel. Despite the fact that children's videos function as a babysitter for friends and family members, yet the children's television program such as Peppa Pig is still intended to teach and entertain, where a child can acquire a language and form favorable values from the videos that they watch, at a given time slot.

Peppa Pig shows assigned semantic roles to signal words and encoded data sets that critically build the identity of the viewer. The children believe that Peppa pig is a good, jolly, and sometimes naughty pig to her friends and families so they also have this identity of having these character traits in real-life situations when they keep watching the kids' program. Through simply watching videos on their

television or smartphones, the program promotes the social interaction of Peppa pig with her friends and family which shows a friendly identity.

Moreover, some children learn more effectively in a social interactive program as discovered by this study. The opportunity for learning new words and acquiring new values was manifested in the program based on the data collected. Moreover, the characters in the program also promote respect and close family ties in the episodes because the top 10 frequently uttered words are mostly Peppa's family members.

2. Growth in Cognitive Abilities

Peppa Pig plays an essential role in developing the cognitive aspects of its viewers, especially the kids. It introduces hundreds, if not thousands, of vocabularies that can be applied in various contexts. Some episodes focus on family, friends, school, and surroundings. These words were inculcated into the minds of the young audiences. Loopies (2015) claimed that kids are naturally fond of copying, mocking, or imitating words that are new to them. This is also supported by the theory of language acquisition where children aged 6-13 are more receptive to the language being introduced to them. It is the stage where children learn most in language. While Peppa Pig enhances and offers a variety of content and function words for the development of their language structure, it also provides children values and stimulates the mind of its audience to different issues and phenomena. Since characters in the show were confronted with conflicts, viewers also tend to adapt to how these characters address and solve conflicts they have.

Peppa Pig also gives its viewers the means to critical respond in different contexts, particularly the young ones. It allows young viewers to see the different perspectives in life, especially how to treat and socialize with other people. This skill is vital to be inculcated to them since one of the misconceptions about kids being exposed to gadgets is that they will form poor interpersonal skills.

3. Fusion of Language and Thinking

Language is an important tool for thought. It allows people to share their ideas, thoughts, and feelings with others. In the same way, children learn language from their environment and are influenced by what is around them. Children's language develops through rich interactions with people in their lives.

Peppa Pig episodes encounter everyday experiences-both familiar and unfamiliar-and provides a role model for positivity and resilience. Young viewers learn self-awareness where they easily relate to-and learn from-the characters' entertaining adventures such as knowing how to handle their emotions, understand the feelings of others, interact in a positive way and make responsible and age-appropriate decisions.

The television program, Peppa Pig, also promotes self-management among its young viewers. When conflicts and problems arise among and between the characters, children learn to seek positive solutions and discover joyful outcomes.

Social awareness such as kindness, respect for others, and an appreciation of diversity is the core of the television program. These are evident in the many episodes of the show. The interactions between Peppa, her family members, and friends are true to life and the importance of listening, teamwork, and cooperation are repeatedly addressed.

Decision-making is another lesson that young viewers can learn from watching the program. Peppa together with her family and friends is sometimes confronted with conflicts and

problems. They do not always know what to do or how to deal with their problems but they do their best in dealing with them and learn lessons as they face each situation.

4. Conclusion

In conclusion, the animated show Peppa Pig provides a combination of educational and entertaining content for its young audience. It promotes important skills such as coordination and communication, encompassing various aspects of social life. The language used in the show helps in building vocabulary and understanding of different concepts. Peppa Pig episodes leverage children's diverse knowledge and enthusiasm, encouraging them to imitate the characters' manner of speaking and the use of words in each episode. This repetition pattern contributes to the child's linguistic development and creates a language-rich environment. The format of the program is designed to be interactive and engaging, adding to its entertainment value. Children learn new things effortlessly as they watch each series. The content is carefully tailored to be age-appropriate, and every episode presents positive outcomes and addresses various challenges. Furthermore, Peppa Pig plays a role in promoting the social development of its young viewers. The importance of spending quality family time is highlighted, as demonstrated by the numerous activities the characters engage in with their families and friends.

4. References

- Aimin, L. (2013). The study of second language acquisition under socio-cultural theory. *American journal of educational research*, 1(5), 162-167. DOI:10.12691/education-1-5-3
- Alexiou, T. & Kokla, N. (2019a). Cartoons that make a difference: A Linguistic Analysis of Peppa Pig. *Journal of Linguistics and Education Research*, 1(1), pp.24-30, DOI: <https://doi.org/10.30564/jler.v1i1.314>
- Alexiou, T. & Kokla, N. (2019b). Teaching cultural elements and Pro-social behaviour to preschoolers through Peppa pig. *Proceedings from the 4th International Conference for the Promotion of Educational Innovation*, Larisa: University of Thessaly.
- Brunkow, F., & Dittrich, A. (2021). Cultural survival in BF Skinner: Possibilities for conceptual refinement. *Behavior and Social Issues*, 1-13. <https://doi.org/10.1007/s42822-020-00044-w>
- Clements, R. (2004). An investigation of the status of outdoor play. *Contemporary issues in early childhood*, 5(1), 68-80. <https://doi.org/10.2304/ciec.2004.5.1.10>
- Christy, T. C. (2013). Vygotsky, Cognitive Development and Language. *Historiographia linguistica*, 40.
- Giuffre, L. (2015). The changing face of kids TV. *Metro Magazine*, (186), 127. <https://go.gale.com/ps/i.do?id=GALE%7CA436232824&sid=googleScholar&v=2.1&it=r&linkaccess=abs&issn=03122654&p=AONE&sw=w&userGroupName=anon%7Eb2626149&aty=open+web+entry>
- Handayani, W., Rafli, Z. Boeriswatri, E. (2021). Effect of YouTube Channel Ania and Elsia on Second Language Acquisition Early Children. *Multiscience*, 2(9), 28-35.

- Hearn, K. (2020). *Peppa Pig is Gangsta: China's Challenging Memes*. In *Tracing Behind the Image* (pp. 73-85). Brill. DOI: https://doi.org/10.1163/9789004438392_008
- Johnson M., & McLean, E. (2020). *Discourse Analysis*, Editor(s): Kobayashi, A. International Encyclopedia of Human Geography (Second Edition), Elsevier, 377-383, <https://doi.org/10.1016/B978-0-08-102295-5.10814-5>
- Kokla, N. (2021), Peppa Pig: An Innovative way to promote formulaic language in pre-primary EFL classrooms, *Research Papers in Language Teaching and Learning*, 11 (1), 76-92.
- Loppies, H.J. (2015). A review of some popular opinions about second language acquisition and teaching: the sociocultural theory (sct) perspectives. *Tahuri*, 11(2), 104-110.
- Prosic-Santovac D. (2017). Popular video cartoons and associated branded toys in teaching English to very young learners: A case study. *Language Teaching Research*, 21(5):568-588. doi:10.1177/1362168816639758
- Scheffler, P. (2015) Introducing very young children to English as a foreign language. *International Journal of Applied Linguistics* 25(1), 1-22
- Stolworthy. (2020, December 3rd). *Peppa Pig: Experts find 'shocking' levels of violence in children's TV*. <https://www.independent.co.uk/arts-entertainment/tv/news/peppa-pig-violence-study-toy-story-b1765556.html>
- Stern, W. M. (2018). Peppa Pig: a helpful portrayal of visiting the doctor. *BMJ: British Medical Journal (Online)*, 360. DOI: 10.1136/bmj.k48
- Vaidyanathan, R. (2010, April 27th). *Pepa Power*. Retrieved from BBC News: <http://new.bbc.co.uk/2/hi/8646601.stm>
- Waitt, G. R. (2005). Doing Discourse Analysis. In I. Hay (Eds.), *Qualitative Research Methods in Human Geography*. U.K.: Oxford University Press. 163-191.

Teaching Practices and Challenges Encountered by SHS Teachers in Oral Communication in Context Subject

Kathlyn Joy G. Guevarra

Angeles University Foundation, Angeles City, Philippines

Email : galang.kathlynjoy@auf.edu.ph

Abstract

The K to 12 Curriculum aims to equip Filipino learners with effective communication skills that they can apply in various contexts. The main purpose of this paper was to present and describe the teaching practices and challenges encountered by senior high school teachers of Oral Communication in Context with two particular questions: 1) What are the current teaching practices of Oral Communication in Context subject teachers concerning teaching materials, classroom activities, assessment, teaching methods, and classroom management; and (2) What are the specific challenges do teachers encounter in teaching Oral Communication in Context? This study employed a descriptive research design through questionnaires and interviews to address the objectives. The participants were 16 public senior high school teachers in the Division of Angeles City, Philippines who have been handling the subject for 1-5 years. Using descriptive statistics and thematic analysis, the findings revealed that teachers demonstrate good teaching practices in general, but they encounter challenges with students' grammar, mixed abilities, large class sizes, and inadequate teaching resources. Hence, this study would provide possible recommendations to the key players of education to offer practical solutions to continuously create a learning environment where students can communicate meaningfully considering accuracy and fluency in the use of the English language.

Keywords : K to 12 Curriculum, Oral Communication in Context, senior high school teachers, teaching challenges, teaching practices

1. Introduction

The K to 12 Curriculum is designed to promote and strengthen quality education in the Philippines. It aims to produce ideal, productive, and effective students ready to confront life-long learning in this diverse global village. The English Curriculum is guided by the idea that language, thinking, and learning are interconnected and people use language to build various forms of relationships. Its primary goal is to develop “communicatively competent and multi-literate learners” who can compete locally and internationally (Department of Education, 2016). Despite the changes in Philippine education, the new curriculum still adheres to the Framework for 21st Century Skills that are centered on the "Four Cs" – critical thinking, communication, collaboration, and creativity (Kivunja, 2015). Communication retains its position as one of the salient elements that students must be good at. Piascik (2015) posited that communication involves "sharing thoughts, questions, ideas, and solutions. The definition implies that through well-designed language activities, students can develop skills such as active listening, speaking, observing, empathizing, adapting communication style to the audience, responsiveness, understanding non-verbal cues, and others under the direct supervision of the teachers (Ali, 2018).

The advent of globalization, however, has shifted the purpose of learning a language from that of mastering linguistic structures to being able to use the language for communicative

purposes that emphasize “authentic communication between people of different languages and cultural backgrounds” (McIntyre, Burns, & Jessome, 2011). This has posed additional challenges to the already overstretched schedules and tasks of teachers since these emerging issues urgent solutions. For instance, for students to experience authentic communication as applied in daily life, the teacher should design tasks and activities that allow students to mingle and interact with other people outside the classroom. It is also important to note the medium or language where communication should take place. While communication using the mother tongue may proceed smoothly and unhindered, engaging in communications in another language such as English may be strenuous and impede the exchange of information due to the inability to express oneself fluently and properly in that target language. The classroom teachers, therefore, should identify the concerns and challenges, so proper remedies can be introduced.

Furthermore, the results of the two-year study conducted by Hopkins International Partners, Filipino university graduates scored an average of 630 on English proficiency based on the Test of English for International Communication (TOEIC). The study said that Business Process Outsourcing (BPO) agents are expected to have a score of 850 in the TOIEC. The BPO industry is one of the strengths of the Philippines in terms of its economic growth as some undergraduates and graduates are accommodated for employment. Moreover, the average was lower than the competency requirement for taxi drivers in Dubai, United Arab Emirates (Enerio, 2018). Hence, Filipino learners must be equipped with the necessary oral communication skills that would fit them in this industry especially since a student can decide to work after senior high school. Employment is not the only option for a senior high school graduate, he or she can go for entrepreneurship or pursue college. Either of these requires a Filipino student to be upskilled in oral communication using the English language.

Similarly, Filipino graduates also averaged a grade of B1 on the Common European Framework of Reference of Language (CEFR), which is lower than the CEFR B2 proficiency target set for high school graduates in Thailand and Vietnam. Included in the written report, Filipino university graduates' median score was comparable to the proficiency of 5th and 6th-grade students in native English-speaking countries such as the US and the United Kingdom (Leonen, 2018). In addition, in reference to the results released by the English Proficiency Index (EPI), which measures the average level of English language skills, the country still falls under the “high proficiency” level. However, as reported by Baclig (2020), the fall of the Philippines from 14th place in 2018 to 20th in the 2019 EPI is an alarming fact that its education sector should immediately address since English proficiency has been its strength towards economic advancement. This scenario requires teachers to reflect on how they are teaching the subject based on the goals of the K to 12 Curriculum, 21st Century Learning Framework, and the advent of globalization with these two questions: (1) What are the current teaching practices of Oral Communication in Context subject teachers concerning teaching materials, classroom activities, assessment, teaching methods, and classroom management; and (2) What are the specific challenges do teachers encounter in teaching Oral Communication in Context?

2. Related Literature

This related literature is divided into two sections: First part is focusing on the teaching practices, followed by the challenges.

Teaching Practices

Teaching practices refer to how teachers understand and implement instruction that reflects principles about the teaching and learning process (Hunter, 2018). These involve the preparation of teaching materials, classroom organization, assessment, and teaching methods. Intending to investigate the teaching practices of English teachers in the Philippines, a survey on the Department of Education's (DepEd) memoranda, circulars, and orders reveals three prevailing English Language Teaching (ELT) practices, which are the Communicative Language Teaching (CLT) approach, Task-Based Language Teaching approach (TBLT), and English for Specific Purposes (ESP). Remarkably, the significance of these ELT approaches, mainly CLT, is constantly embraced by DepEd since the shift of the K to 12 Curriculum to provide authentic communicative tasks in the classroom (Karami & Zamanian, 2016).

Brown (2007) posited that CLT is “an approach to language teaching methodology that emphasizes authenticity, interaction, student-centered learning, task-based activities, and communication for the real world, meaningful purposes.” Richards (2006) proposed TBLT which aims to achieve the goal of CLT. This approach composes of meaningful tasks that language learners need to carry out. Nunan (2004) defined tasks as activities that are needed when using the target language. While ESP was presented as a "scientific and culture-free approach" attributed to the mounting global spread of English, the increasing demand for Filipino workers, and the need for development in science and technology in the country (Martin, 2014). The K to 12 Curriculum also gives importance to the use of differentiated instruction in the teaching and learning process. Differentiated instruction is an approach to teaching that recognizes students' differing abilities that teachers need to accommodate (Tomlinson, 2003; Schleicher, 2016).

Furthermore, Barrot (2016) investigated the common teaching beliefs and practices of professional ESL teachers. From the conducted interview, it has been found that teachers' beliefs and practices are not always aligned with the current and accepted principles of second language teaching. Teachers are aware of their teaching practices and agree with their principles. However, not all the methods are applied in their classroom teaching. Toro et al. (2018) emphasized that the strategies can only be effective through constant application. Because even if teachers use modeling, repetition, pair and group work, and others that were mentioned previously, in a limited time, these cannot still bring desirable outcomes in developing communicative competence among students. Thus, it is crucial to integrate them more often in the teaching practices inside the classroom.

Localizing the context, in the Division of Angeles City, two of its best practices are used by teachers in the classroom. The first one is the integration of Contextualization to elevate the overall quality of education served to Filipino learners in basic education through the K to 12 Program. This is following DepEd Order N. 32 S. 2015 which defines contextualization as the "educational process of relating the curriculum to a setting, situation or area of application to make the competencies relevant, meaningful and useful to all learners." The second one is Content-Based Instruction (CBI) which is defined by Brinton (2003) as "the teaching of language through exposure to content that is interesting and relevant to learners. In 2019, the use of CBI was promoted by the division not only to provide opportunities for the student's language learning and acquisition but also to lessen their burden in accomplishing tasks that might overlap other subjects' requirements. Furthermore, debates, role-plays, and the use of games such as guessing things and creating different sounds are good activities for improving and teaching oral

communication (Zhu, 2012). The use of realia (real objects) and technology have also been reported to help the students understand the lessons presented by the teachers (Harmawan, Pangesti, & Rokhyati, 2019; Bala, 2015).

Challenges in Teaching Oral Communication

This discussion focuses on the difficulties encountered by teachers in teaching oral English communication in some parts of Asia to relate to the context of this present study, which is in the Philippines. Teaching challenges refer to obstacles, concerns, and difficulties that a teacher encounters with students, parents, administrators, or responsibilities one must accomplish (Dussault, 2018). Drawing on data from an international research project, Copland et al. (2013) concentrated on the challenges experienced by English teachers in developing young learners' ability to communicate using English as it becomes highly needed globally. Using a mixed-methods approach, 4,459 teachers worldwide were surveyed and case studies in five different primary schools in five different countries were conducted. The common problems revealed were in teaching speaking, writing, and grammar using English, limited use of differentiated instruction, lack of students' discipline and motivation to learn the target language, overcrowded classes, and lack of opportunities for teachers to develop English competence.

In Iran, most of the students demand that their English teachers should use textbooks prescribed by the Ministry of Education because they know that final exams are based on these. This becomes a challenge for the teachers as they are pressured to match their teaching practices to the demands of nationwide exams (Jahangard, 2007). Akbari (2015) also claims that the use of textbooks is a big problem in language teaching because the tasks found in Iranian students' textbooks do not give them the chance to practice the use of English. Also, Behroozia and Amoozegar (2015) found that teachers in Iran are challenged by a lack of instructional time and teaching resources. They are also frustrated by having low proficiency in English and in using technology as instructional materials. Likewise, Zan and Goh (2011) gathered data from 331 EFL teachers from 44 universities in 22 cities in China through open-ended question surveys and semi-structured interviews. The major challenges among teachers were their lack of English proficiency and pedagogical knowledge in teaching oral communication. Other problems included students' passiveness, linguistic skills, lack of actual language environment and resources, large class sizes, and inadequate instructional time.

Al Hosni (2014) discussed that the oral skill problems of students, namely, linguistic difficulties, mother tongue use, and inhibition in Oman are attributed to teachers' lack of instructional emphasis on speaking. In the interview, the teachers believed in the importance of speaking, however, they allot more time to teaching grammar points and vocabulary items because speaking is only integrated with reading and writing. They also often use L1 in classroom discussions and allow students to speak in their L1 as well. In another Asian context, the study of Ulla (2018) investigated the experiences of nine Filipino tertiary English teachers to identify and describe English language education in Thailand. In an in-depth individual interview, although the teachers are well-respected by the students, they have revealed that they are challenged by the lack of students' interest and exposure to the English language, perplexed English language curriculum, and the need for teacher professional enhancement.

In the Philippines, Berowa (2016) revealed that Meranao students, who largely settle in Lanao Lake in Mindanao, describe the use of English as "absurd" when communicating in class since it is difficult to respond in the language which they all find difficult. Also, 80% of them used English sometimes because they are not encouraged by their other content subject teachers

since the focus is not the language. The challenges lie in the different views of teachers in using English as the language of instruction in non-Filipino subjects in the Philippines. Lastly, Capacete (2019) conducted a case analysis on the assessment practices of three SHS Communication teachers in one of the private schools in the Philippines that provided the findings that the participants all understand the purposes of assessment and they use various types in the classroom context.

Most of the previous studies analyzed the teachers' practices and difficulties in oral communication teaching in the Asian context (Karami & Zamanian, 2018; Ulla, 2018; Barrot, 2016; Behroozia and Amoozegar, 2015; Al Hosni, 2014; Zan and Goh, 2011; Jahangard, 2007). Capacete (2019) focused her study on determining teaching assessment practices in Oral Communication in a private SHS but highlights the need to further conduct a similar study. Copland et al. (2013) conducted an international study on English language difficulties in general. It was suggested that future studies must aim to examine other challenges that can be revealed through research. Al Hosni (2014) also recommended that to develop knowledge of oral communication problems, the researcher first needs to know where these problems originated. Furthermore, Barrot (2016), who examined the English teaching beliefs and practices in the Philippines, urges the need for further research on the application of established teaching approaches and methods.

The framework of the study

Learning oral communicative skills is complex. It requires students to monitor their learning while teachers provide them with various activities in classrooms. The Monitor Hypothesis of Krashen (2003), states that acquisition and learning are used in specific contexts. The conscious knowledge of students allows them to monitor their mistakes in acquiring knowledge such as correct pronunciation of words in sentences and transforming their ideas communicatively by observing correct sentences. In this case, teachers should help students to become optimal monitor users of the language to make them conscious of their mistakes when communicating and motivated in understanding and using the English language. Motivation plays an important role in second language learning. It has been defined as the stimulus that causes a person to expend effort to accomplish results. The main reason why students go to school is to achieve individual success. In relation to teaching, Dornyei and Kubanyiova (2014) attributed motivation as the most important factor that educators can target to improve learning. This is very evident in the actions of the teachers which is why they become the most influential people in their lives. Motivation remains a significant factor that strengthens language learning for students. They proposed a new approach to the understanding of L2 motivation that constitutes of ideal L2 self, ought to L2 self, and L2 learning experience. He even suggested techniques that are currently being developed to use self-enhancing activities, visualization, and guided imagery in the language classroom. Students must understand that the primary motivators of their learning are themselves. There is a need for emphasis on their roles as learners and not as recipients of knowledge alone.

This current study is framed after the work of Bruner, Sinwongsawat, and Radic-Bojanic (2015). Their study has three objectives: to investigate the actual practices in the oral English communication courses from the standpoints of college instructors and students; to determine current problems met by the participants who adhere to the CLT and TBLA, learner-centered, and independent learning principles; and to suggest possible solutions to increase students' oral communication proficiency level through classroom instruction. A survey was used to obtain the

views of college students enrolled in oral English communication courses at two universities in Thailand and Serbia during the academic year 2011-2012. The questionnaires have two parts. The first part elicited teachers' backgrounds and the second one is comprised of statements about the teaching materials, classroom activities, assessment, teaching methods, and classroom management. The questions on teaching difficulties were particular on the problematic areas in oral communication and classroom challenges that were directed toward the teachers and students. Classroom observations were also conducted to provide substantial evidence. The study revealed that teachers who continue to observe CLT practices mostly involved students in collaborative tasks rather than in individual and teacher-focused activities. The students also create unrealistic and scripted role-plays which hindered them to observe spontaneity in speaking the English language. Other problems were having mixed abilities of students in a class, class sizes being too big, and teachers' overemphasis on group tasks.

The current study specifically adapted the survey questionnaire used by Bruner et al. (2015) to examine the teaching practices of Oral Communication teachers who claimed to embrace CLT practices. The point of investigation was taken only from the perspectives of teachers who have been teaching the subject for 1-5 years or since the beginning of the SHS curriculum. Hypothetically speaking, there is no in-depth study in the Philippines that emphasizes this research endeavor. The researcher believes that analyzing this content from a specific level and subject area would illuminate more authentic findings that can be considered by the teachers in handling and achieving the objectives of the Oral Communication in Context subject.

3. Methodology

The participants of this study were 16 Oral Communication Teachers, 4 males, and 12 females. They are public senior high school teachers in the Division of Angeles City, Pampanga, Philippines. They have been handling the subject for 1-5 years during the conduct of this investigation. Aside from the core subject Oral Communication in Context, they all handle the other English subjects in senior high school such as Reading and Writing Skills, English for Academic and Professional Purposes, and Research subjects.

This study employed a descriptive research design to achieve its main purpose which was to present and describe the teaching practices and challenges of teachers. Descriptive research is used mainly in describing a population, situation, or phenomenon using questionnaires, interviews, surveys, and observation (McCombes, 2019). Represented in this study are two variables: teaching practices and challenges encountered in teaching Oral Communication in Context. The data were obtained using two instruments. The first one is the survey questionnaire that was adapted from Bruner et al. (2015) as emphasized in the framework of the study. Since the researcher adapted the tool, particular questions on the curriculum guide and awareness of their teaching method were asked of the 16 teachers. The second instrument was the semi-structured interview with six questions to supplement the information taken using the survey questionnaire. The interview questions were validated by three experts coming from different institutions to obtain the validity and reliability of the interview guide.

Before the interview, the researcher purposively selected five participants who represented each length of teaching experience with the subject beginning from 1 year to 5 years to look at the different viewpoints. The purposive sampling technique is used to determine the

participants based on criteria of what components will implement in a study (Adler & Clark, 2008). The survey questionnaire and interview were both administered through Google Forms.

Descriptive statistics was used to analyze the data from the survey questionnaire to complement the research design and to present and describe the teaching practices and challenges of the participants. Descriptive statistics aims to provide a summary of the samples and the variables in a study together with some graphic analysis to describe the data presented (Kaur, Stoltzfus, & Yellapu, 2018). The researcher also used thematic analysis to interpret the data from the five selected teachers in the semi-structured interview. Thematic analysis is a “method for identifying, analyzing, and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 79). This also permits the researcher to associate the investigation of his or her meaning with his or her context (Joffe & Yardley, 2004). The analysis of the themes was validated by three experts to achieve validity of the interpretations and to avoid bias in the results.

4. Results and Discussions

Before discussing the results, demographic information is necessary to present the qualifications of the participants. The participants were composed of 12 (75.00%) females and 4 (25.00%) males. They are Senior High School (SHS) Oral Communication in Context teachers from selected public secondary schools in Angeles City. The researcher also took part in answering the survey because she teaches the subject. Their length of service in teaching the subject is ranging from 1 to 5 years. Thirteen (81.25%) of the teachers were graduates of Bachelor of Secondary Education major in English, 1 (6.25%) is a Bachelor of Elementary Education major in English degree holder, another 1 (6.25%) is an AB Communication graduate, and 1 (6.25%), who had the most teaching experience with the subject, had obtained BS Physical Therapy degree. Most of them speak Kapampangan and Filipino, but one is proficient in Cebuano, as their mother tongue. All of them, except for one who can also speak basic Chinese, speak English as another language aside from their L1. The teachers also handle core and applied English subjects apart from Oral Communication in Context in the SHS.

Results from the Survey Questionnaire

4.1. Teaching Practices

Teaching practices refer to how teachers understand and implement instruction that reflects the teaching and learning beliefs and principles (Hunter, 2018). In this section, the researcher aimed to present and describe the results of the teaching practices that involve the teaching materials, classroom activities, assessment, teaching methods, and classroom management of SHS Oral Communication in Context teachers.

4.1.1. Teaching materials

Table 1 shows the teaching materials used by teachers. All of them use *textbooks from other sources* because they claimed it as the most useful teaching material. Although textbooks are research-based and well-evaluated before publication, they have contextual limitations. These were also found to provide challenges to some teachers (Akbari; 2015; Jahangard, 2007). It is also evident that most of them use the *internet, prescribed curriculum guides, PPTs, and video material*. Aside from these, their classrooms have pre-installed blackboards, while half of them have built-in televisions, but few have projectors and computers. It can be said that the teachers access the internet outside the classroom to prepare the other teaching materials like downloading *video materials* and references for *handouts* and *PPTs*. Although the use of ICT is

still evident, the use of real objects on the other hand is mostly neglected. The use of realia is a good strategy to promote authentic communication since these are found in the real world (Harmawan, Pangesti, & Rokhyati, 2019; Mahdi, 2015; Bala, 2015). While it is understood that a journal is the least used since this is normally used in reading and writing classes. However, some studies proved that exposure to reading materials like journals helps students develop word knowledge that may foster improvement in speaking skills (Mart, 2012). These imply that the two most seldom used teaching materials, which are journals and realia, should be considered in *Oral Communication in Context* class more often to further relate learners in real-world contexts. However, the less usage of journals in the classroom during oral communication tasks may reflect students' problems in reading comprehension. When students cannot grasp the information in a text, they tend to give up reading. This leads to the inability to orally communicate the information.

Table 1 Teaching materials used in Oral Communication in Context

Item	Count	Percent
Textbook from other sources	16	100.00%
Internet	15	93.75%
Prescribed Curriculum Guide	14	87.50%
PPT	14	87.50%
Video material	14	87.50%
Textbook from DepEd	12	75.00%
Handouts	12	75.00%
Photos	10	62.50%
Audio material	10	62.50%
Realia (real objects)	4	25.00%
Journals	1	6.25%

4.1.2. Class activities

The class activities are anchored on the principles of CLT including task-based learning as its methodology. Brown (2007) and Richards (2006) stated the main goal of English language teaching is to provide authentic communication to the learners. Most of the teachers design and give priority to *tasks related to real-world uses of spoken English, monitoring students' progress and providing feedback, and finding strategies to make oral English communication manageable for them* rather than *accuracy-focused activities* and *fluency-focused activities*, which are mostly done in groups. The lack of emphasis on accuracy and fluency in speaking English is one of the biggest challenges for teachers until now. As stated, the goal of the K to 12 English Curriculum is to develop communicatively competent and multi-literate learners. Communicative competence is achieved when a person observes knowledge in syntax, morphology, and phonology in using the language appropriately (Hymes, 1972). This explains that while teachers embrace the principles of the K to 12 Program and consider the advent of globalization, they should also strike a balance of accuracy and fluency as they contribute to students' becoming communicatively competent individuals.

Table 2. Class Activities in Oral Communication in Context

Item	Count	Percentage
Tasks related to real-world uses of spoken English	15	93.75%
Monitoring students' progress and providing feedback	15	93.75%
Finding strategies to make oral communication English communication manageable for them	15	93.75%
Presenting information new to the students	13	81.25%
Meaning-focused activities	12	75.00%
Facilitating learners' learning to speak appropriate, intelligible English	12	75.00%
Accuracy-focused activities	11	68.75%
Fluency-focused activities	11	68.75%

4.1.3. Assessment

The types of assessments used in teaching the subject are important components of the teaching practices employed in a classroom (Saefurrohman & Balinas, 2016). Taken from the survey questionnaire, 15 (93.75%) teachers assess the students using *oral presentation grading* and *role-playing*, which both allow them to work collaboratively and speak the language. These two are also considered the most important forms of assessment because they believe that the students can mostly comply with these two requirements; hence, they use these most of the time. The majority of them also use *quizzes* and *quarterly exams* to test the student's understanding. Since *Oral Communication in Context* is a core subject, it gives 25% for *Written Outputs*, 50% on *Performance*, and 25% on *Quarterly Exams* as per the prescribed grading system. Both *stage play* and *individual recitation* are the least used forms of assessment. A stage play is also a form of oral presentation and is similar to role-playing. But since most of them conduct activities in the classroom, only one uses stage play to expose students' performance to other audiences. The teachers apply different practices for their assessment, but one similarity is that the students are only assessed in the context of their classroom, whereas, the subject requires them to use oral communication in various situations. This is comparable to the investigation of Capacete (2019) found in the literature review.

Table 3 Types of assessment used in Oral Communication in Context

Item	Count	Percentage
Oral presentation grading	15	93.75%
Role-playing	15	93.75%
Quizzes	14	87.50%
Quarterly exam	14	87.50%
Reading comprehension	12	75.00%
Grammar tests	10	62.50%
Vocabulary	8	50.00%
Dictation	8	50.00%

Item	Count	Percentage
Translation	4	25.00%
Stage Play	1	6.25%
Individual Recitation	1	6.25%

4.1.4. Teaching methods

Teaching methods are described to be the fundamental elements using various strategies applied in the classroom based on the instructional objectives (Dorgu, 2015). When teachers write their Daily Lesson Logs, all are particular with clear statement goals and clear instructions in the teaching procedure. In the survey, the participants were asked about their level of awareness in applying the methods in their classroom. The majority of them are strongly aware of the methods they use in teaching. All of them include students in group work to facilitate their learning after the whole class discussion. They also acknowledge students' independent learning because they allow time to assign individual work, while *peer feedback* is the least observed because teachers provide feedback most of the time. The use of peer feedback is a good strategy to promote independency that allows learners to speak and listen because they are involved in a situation where everyone holds equal authority (Alrubail, 2015). All teachers said that they address some concerns such as corrections after the students finished speaking to allow them to express their thoughts freely and comfortably using English. They have also specifically enumerated Differentiated Learning, Collaborative Learning, Direct Method, Audio-Lingual Method, Immersion, Content-Based Instruction, Task-based Language Teaching, and Communicative Language Teaching as language methods applied in teaching the subject.

Table 4 Teaching methods used in Oral Communication in Context

Item	Count	Percentage
Group work	16	100.00%
Whole class discussion	15	93.75%
Individual work	15	93.75%
Teacher modeling	14	87.50%
Pair work	14	87.50%
Teacher feedback	13	81.25%
Giving lectures	12	75.00%
Peer feedback	11	68.75%

4.1.5 Classroom management

Classroom management denotes the “actions that teachers do to create an environment that promotes and contributes to both academic and social-emotional learning” of students (Evertson & Weinstein, 2006, pp. 4-5). In the Philippines, citing House Bill 473 or An Act Regulating Class Size in All Public Schools and Appointing Funds, one teacher shall handle a standard class size of 35-50 students. The participants in this research mostly handle classes with 31 and more students, which makes the classroom crowded. To maximize the classroom size, the teachers prefer the students to sit on chairs in solid rows rather than in circles. The students are allowed to move the chairs in circles during group work to communicate face-to-face with their classmates. More than managing the physical classroom, disciplining and guiding students are other key roles of teachers in and out of the classroom. Outside the classroom, teachers still provide support to students' concerns during office hours. Even at home, they still extend assistance through other means of communication like social accounts and text messages. Most of the time, aside from answering students' inquiries, teachers get the chance to know the

personal problems of the students, which helps them understand the difficulties of other students such as reasons for absenteeism and lack of focus in the classroom. This implies that teachers are not only after knowledge and skills but inculcating good values in students through simple guidance is a manifestation that they are passionate about teaching. Lastly, they create a non-threatening environment for students' mistakes to not feel disrespected or embarrassed when using the English language.

4.2. Teaching Challenges

This second section discusses the results taken from the survey questionnaire regarding the teaching challenges that SHS Teachers in Oral Communication in Context encounter.

The teachers were asked if they encounter some challenges in using the prescribed Curriculum Guide in Oral Communication in Context. In the survey, the majority said that it is not a problem since they were properly oriented on its use. It is also sufficient in providing structure and guidance to the attainment of learning objectives in the subject. While in the case of the other participants, their concern is brought by the few topics that do not contribute to the overall preparation and presentation of a student's speaking ability.

The subject aims to develop two main skills: speaking and listening. The majority of teachers find it challenging when students commit grammatical mistakes as they speak the language (Zan & Goh, 2011; Alyan, 2013; Al Hosni, 2014; Alghail & Mahfoodh, 2019). While teachers provide speaking tasks, they should also monitor grammar. Teachers are torn between the students' capability to communicate accurately and fluently. Also, listening is not found to be a major challenge and was not even directly identified as an evident problem in the literature discussed. Whereas, listening also has to be given more focus in the classroom because speaking and listening are two inseparable skills to be developed in *Oral Communication in Context* subject.

Table 5 Problems encountered by students

Item	Count	Percentage
Grammar	12	75.00%
Speaking	11	68.75%
Vocabulary	11	68.75%
Writing	10	62.50%
Pronunciation	10	62.50%
Listening	8	50.00%
Reading	6	37.50%

Aside from the skills mentioned previously, the major challenge that teachers encounter in teaching is having *a class with students of mixed abilities*. Having students of mixed ability may cause disinterest in higher proficient students and makes it challenging to prepare communication activities (Likitrattanaporn, 2014). While this is true, teachers have to accept that diversity in the classroom is common. To address some concerns related to this, the use of differentiated instruction should be maximized (Tomlinson, 2003; Schleicher, 2016). In connection with the previous results, although the students are engaged mostly in oral speaking activities, this does not guarantee that everyone in the class can actively speak since speaking is still one of the major problems of the teachers. Also, most of the time, they are engaged in group work rather than individual work (Bruner et al., 2014). This makes the teachers seek support to

have teaching facilities such as a multimedia/computer/language lab, self-access center, and reading room to extend opportunities for individual learning.

Table 6 Teaching challenges

Item	Count	Percentage
My class is of mixed abilities.	10	62.50%
There are too many students in my class.	6	37.50%
I do not have enough resources.	6	37.50%
My students are not motivated.	4	25.00%
The classroom is not adequate.	3	18.75%
The teaching material cannot help me attain the course goal.	3	18.75%
I have difficulties understanding my students.	1	6.25%
I do not have adequate teaching skills.	0	0.00%
I am not confident about my English speaking ability.	0	0.00%
I have no institutional support.	0	0.00%

Results from the Interview

To supplement the information gathered from the survey questionnaire, the interview was conducted among five selected teachers with 1-5 years of teaching experience. Using the thematic analysis, the discussion of the teaching practices and challenges are explained in detail below.

Teaching Practices. Despite differences in years of teaching experiences, the participants have similar strategies applied in teaching the subject such as viewing video clips that model conversation skills and activate active listening, group presentations, and assignments, responding to questions, designing activities that stimulate critical thinking, and other reflective learning opportunities, which are mainly done in the classroom context. They also allow the students to speak without interruption to freely express their ideas. Corrections related to grammar, pronunciation, and misconceptions are addressed after speaking.

T1: "Direct method, communicative language teaching, task-based language teaching."

T2: "I make it a point to let them speak and perform without interruption. Afterward, reflection follows, and if there are some points to improve, I would nicely point them out."

T3: "Student interaction and collaboration (pairs, groups), Presentation and explanation of accomplished graphic organizers, Ice breakers (spoken poetry, comedy skits, debates, game shows/pageants)."

T4: "Watching video clips that model conversation skills, group oral presentations, speaking tasks that allow them to think critically, and listening tasks during dictations."

T5: "Normally, I use oral presentation and role-playing activities."

Some of the recommended practices of DepEd that the teachers apply are aligned with the principles of learning by doing, wherein the students are given the freedom to construct their knowledge and make sense of their experiences to achieve a certain learning competency. They also promote the use of Content-Based Instruction to motivate the students to talk about the

things they know in their other subjects including social issues and the Division's *Project Ready to Read (Drop Everything and Read)*, wherein students choose a book or selection to read for a few minutes. Afterward, they will talk about the insights they gained from the materials in class.

T1: Implementation of school-based projects approved by the Division Office in classes, such as Project Ready to Read (Drop Everything and Read), which helps them develop reading comprehension skills and oral communication skills because of the sharing activities."

T2: "Learning by doing, definitely. Let the learners perform the tasks especially when it is a performance course like OCC."

T4: "I usually integrate tasks and activities that foster critical thinking in teaching Oral Communication in Context to ensure the attainment of the curriculum standards and learning competencies of the subject."

T5: "Content-based integration, role-playing, and simulation."

In line with the ELT practices, the participants have discussed that their teaching language methods are all anchored on the guidelines of the K to 12 curriculum and principles of CLT and TBLA because they find these necessary in promoting oral communication skills and self-confidence. While adapting the practices, *Teachers 2, 3, and 4* strictly require the students to use English while accomplishing different tasks. The task-based approach consists of a series of meaningful tasks that language learners need to perform. Tasks are defined as activities that are needed when using the target language (Nunan, 2004). Through the tasks, they tend to acquire language while performing the learning experiences given to them.

T2: "The most effective one so far is not giving them an option to use any other language. Speak English at all times, even when you're outside talking to them or online. It has been effective for me because the students are forced to use the language even in the most common situations like asking about their tasks or asking for favors. It's always fun!"

T3: "I use/give activities that engage the students, let them participate enthusiastically, and develop their communication skills and self-confidence. I highly encourage them to speak up and speak out their thoughts (answers during recitation, suggestions, comments, queries) in English because these are ways where they can practice usage of the language."

T4: "Communicative Learning Technique, because for me, students learn best when they do it and practice English through different learning tasks and activities."

However, *Teachers 1 and 5* allow the use of L1 while adapting ELT practices. This is in connection with the explanation that some teachers find it challenging to require students to speak the language properly or just focus on the ideas they want to express. This challenge was also found by Barrot (2019) when he investigated the issues and concerns of the English Curriculum Reform in the Philippines. His study revealed that the K to 12 curriculum planners may need to improve their clarity, specificity, and internal coherence to improve their implementation.

T1: "Task-based language teaching and communicative language teaching because they acquire oral communication skills better when they experience it first-hand. For some activities, they speak freely in their mother tongue/Filipino, but in some tasks, they are encouraged to communicate with one another in English to help them practice."

T5: Normally, I use CLT, simulation, role-playing, and language games, which I think are relative and effective. I allow them to speak Filipino or Kapampangan during brainstorming to express their ideas more comfortably."

Teaching challenges. The major challenges that the teachers often encounter are not on the subject itself or themselves but with the students' difficulty speaking the language. As they have mentioned, the students' apprehension to talk using the English language flawlessly hinders their active participation in the activities because they are too conscious to commit grammatical

mistakes. This is supported by the results of the survey which also indicates that students' inability to pronounce words clearly and confidently is another concern for the teachers.

T1: "Some students feel intimidated to speak in complete English."

T2: "The biggest challenge when I handle OCC is always the students' apprehension to talk because they have been conditioned that when speaking English, everything must be flawless."

T3: "Majority of the students encounter difficulty speaking in English (L2)."

T4: "Some of the specific challenges that I encounter when teaching OCC are the students at times are not able to speak accurately, communicate ideas fluently, speak with clear pronunciation, and communicate ideas confidently."

T5: "Lack of participation."

When encountering such challenges, some teachers give the option to use translations. The students will use their L1 in expressing their ideas, and then the teacher will guide them in translating the words into English. This is to give them the time to practice the use of English through scaffolding. Other teachers explained that they implement the use of English strictly even with grammatical errors just to encourage students to speak. It should only be noted that in doing this, the students will not be humiliated, rather feel motivated through constructive criticism and incentives, like plus points for being able to share their ideas. The use of more applicable strategies and methods that fit their abilities through communicative tasks is also mentioned.

T1: "I still encourage the students to answer. If they are uncomfortable with the language, I let them speak in the vernacular/Filipino first. I then will translate it for them and they will repeat what I have stated (in English). Instead of firmly asking them to speak in complete English, I meet them halfway. But after the particular recitation/presentation, I always remind them to practice so next time they would not need assistance."

T2: Like what I have already mentioned, let the learners commit mistakes. Do not shout at them or humiliate them in front of their classmates just because they have committed a grammatical mistake. Make them feel that the best place to commit mistakes is the classroom--your English classroom. This is where these mistakes would be politely corrected by both the teacher and their classmates. Make them feel welcomed and accepted, whatever level of English they have. The atmosphere should not be threatening at all.

T3: "1) Use English as a medium of instruction (strictly) so that students will eventually get used and adapt to the policy; (2) Allow students to freely express their thoughts (even with some grammatical errors) to develop their confidence and skill in speaking the language; (3) Correct students in their pronunciation and enunciation of words in a constructive and subtle manner; (4) Correct their grammar."

T4: "I address these specific challenges by using more applicable strategies and methods that fit their abilities so they could learn better and easier with appropriate activities."

T5: "I encourage my student to participate by giving them positive reinforcements, rewards, and appreciation."

5. Conclusion

This paper focused on examining the teaching practices and challenges encountered by SHS *Oral Communication in Context* teachers. The main findings were that teachers consistently play their part in developing and strengthening the students' oral communication skills including listening skills. They believe that Filipino learners must be equipped with effective communication skills that they can use to confront the various contexts of life such as being prepared for college, entrepreneurship, and employment locally and internationally. In doing this, they are focused on providing tasks that require authentic use of English, monitoring learners' progress and providing feedback, and exploring strategies to make oral communication attainable for the learners within the classroom. The activities given are all anchored on the general goal of

the 21st Century Learning Framework and DepEd's K to 12 Curriculum while considering the advent of globalization. In teaching, the teachers are also open and generous in accepting the fact that since the students cannot perfectly speak the language, they provide opportunities for them to practice expressing their thoughts in a non-threatening environment. The use of L1 is also accepted, but not encouraged. They also prioritize meaning-focused activities rather than accuracy-focused tasks. Moreover, they assess the students using the activities that most of them can fulfill such as oral presentations and role-playing with the help of one another through group works and whole-class discussions. They even adopt the best practices of the Division's Office like contextualization, Project *Drop Everything, and Read* wherein the students are asked to talk about some insights they gained from reading materials and Content-Based Instruction that links other contents in their classroom.

Based on the presented evidence of this study, the teachers exemplify good teaching practices in *Oral Communication in Context*. Although this has been the conclusion, it does not imply that these are perfectly done because the teachers still encounter certain challenges. First, they encounter challenges in having students with mixed abilities, large class sizes, and inadequate learning resources inside the classroom. These were also similar challenges identified by Bruner et al. (2015). In this case, teachers can broaden the use of differentiation in the classroom to break down the required skills of students and to find out their specific level in terms of improving their skills and competencies. It is expected that teachers will address students' differences by not treating them as problems but as an opportunity to design and explore other teaching practices that would benefit mostly the learners. , there could also be a problem in giving collaborative tasks most of the time as it impedes an individual's ability to work independently. Fourth, being open and generous with students' communication lapses can give an insinuation that communication is all about expressing thoughts and emotions in whatever way they want without considering language accuracy and fluency. The teachers must walk toward one goal by observing balance in teaching the language. Lastly, the word "context" in the course's title and description demands the teachers to provide other activities that can be done outside the classroom to make the students explore their abilities in various situations like interviewing other nationalities in the Philippines, oral demonstrations applying their knowledge in their specialized tracks, and other activities that require them to communicate using English and appreciate the value of communication in their lives. These things are all possible; however, teachers also secure students' safety as they do not have full control over the possible circumstances that may happen outside the classroom. This becomes even more challenging because COVID-19 greatly affects the education sector, not only because the mode of teaching is far different from the face-to-face classroom setting that teachers and students in the public and most private schools used to do, but most importantly the health of everyone is at stake.

Such problems are indeed challenging not only for the teachers but to everyone who also perform crucial roles in the education of the students. The word *challenge* indicates more opportunities to prove one's dedication and passion in the teaching profession. This study leaves a suggestion to other researchers to investigate other teaching practices applied in other communication or English subjects and to prove other challenges that need to be examined by key players in education. Moreover, to address students' difficulties in communication such as problems in grammar, it is suggested that teachers can conduct enrichment activities that would focus on the development of this linguistic area, which is not directly tapped into the target lessons and competencies in *Oral Communication in Context subject*. Hence, this study calls for other practical solutions to the other challenges presented to continuously create a learning

environment where students can communicate meaningfully and confidently considering accuracy and fluency in the use of the English language especially that in the Philippines, students underwent modular classes for two years because of the threats brought by COVID-19 pandemic. Since the results of this investigation are limited to the participants and methods undertaken, other researchers may also consider triangulating the findings by also checking the perceptions or beliefs of other stakeholders such as students, the subject coordinator, or the school head.

References

- Adler, E., & Clark, R. (2008). *How it's done: An introduction to social research*. Cengage Learning. Retrieved from <https://www.grin.com/document/1895529>
- Alghail, A. A. A., & Mahfoodh, O. H. I. (2019). Academic oral communication difficulties encountered by Yemeni postgraduate students in a Malaysian university. *Issues in Educational Research*, 29(2), 301-325. Retrieved from <https://www.iier.org.au/iier29/alghail.pdf>
- Akbari, Z. (2015). Current challenges in teaching/learning English for EFL learners: The case of junior high school and high school. *Procedia - Social and Behavioral Sciences*, 199, 394-401. doi:10.1016/j.sbspro.2015.07.524
- Ali, A. (2018). Understanding the complex process of oral communication. *International Journal of Language and Literature*, 6(1), 123-128. doi.org/10.15640/ijll.v6n1a17
- Alrubail, R. (2015). The power of peer feedback. *Edutopia*. Retrieved from <https://www.edutopia.org/discussion/power-peer-feedback>
- Alyan, A. A. (2013). Oral communication problems encountering English major students: Perspectives of earners and teachers in Palestinian EFL University context. *Arab World English Journal*, 4(3), 226-238. Retrieved from <https://awej.org/images/AllIssues/Volume4/Volume4Number3Sept2013/19.pdf>
- Al Hosni, S. (2014). Speaking difficulties encountered by young EFL learners. *International Journal on Studies in English Language and Literature (IJSELL)*, 2(6), 22-30. Retrieved from <https://www.researchgate.net/publication/270340628>
- Baclig, C. E. (2020). *Philippines drops further in global English proficiency rankings*. Inquirer.Net. <https://newsinfo.inquirer.net/1362951/philippines-drops-further-in-global-english-proficiency-rankings>
- Bala, E. (2015). The positive effect of realia in EFL classes. *International Journal of Social Sciences & Educational Studies*, 2(1), 43-48. Retrieved from <https://ijsses.tiu.edu.iq/wp-content/uploads/2017/12/The-Positive-Effect-of-Realia-in-EFL-Classes.pdf>

- Barrot, J. S. (2016). Examining the teaching beliefs and practices of experienced ESL teachers: A sociocognitive-transformative perspective. *The Southeast Asian Journal of English Language Studies*, 22(1), 153 – 163. Retrieved from <http://ejournal.ukm.my/31/article/viewFile/9881/3951>
- Barrot, J. S. (2019). English curriculum reform in the Philippines: Issues and challenges from a 21st century learning perspective. *Journal of Language, Identity & Education*, 18(3), 145-160. doi:10.1080/15348458.2018.1528547
- Behroozia, M., & Amoozegar, A. (2014). Challenges to English language teachers of secondary schools in Iran. *Procedia - Social and Behavioral Sciences*, 136, 203 – 207.
- Berowa, A. M. C. (2016). English language use among oral communication Meranao students and their language learning orientations: The MSU Marawi case. *The Online Journal of New Horizons in Education*, 6(4), 75-79. Retrieved from <https://www.tojned.net/journals/tojned/articles/v06i04/v06i04-08.pdf>
- Braun V., & Clarke V. (2006). Using thematic analysis in psychology. *Qualitative Research Psychology*, 3, 77-101.
- Brinton, D. (2003). *Content-based instruction*. In Nunan, D. (Ed.), *Practical English Language Teaching*. USA: McGraw-Hill Contemporary.
- Brown, H. D. (2007). *Teaching by principles*. New York: Addison Wesley Longman Inc.
- Bruner, D. A., Sinwongsuwat, K., & Radic-Bojanic, B. (2015). EFL oral communication teaching practices: A Close look at university teachers and A2 students' perspectives in Thailand and a critical eye from Serbia. *English Language Teaching*, 8(1), 11-20. doi:10.5539/elt.v8n1p11
- Cabigon, M. (2015). State of English in the Philippines: Should we be concerned? *British Council Philippines*. Retrieved from <https://www.britishcouncil.ph/teach/state-english-philippines-should-we-be-concerned-2>
- Capacete, M. P. A. (2019). A case analysis of the assessment practices of oral communication teachers in a private school in the Philippine setting. *Modern Journal of Studies in English Language Teaching and Literature*, 1, 42-59.
- Copland, F., Garton, S., & Burns, A. (2014). Challenges in teaching English to young learners: Global perspectives and local realities. *TESOL Quarterly*, 48(4), 738-762. doi: 10.1002/tesq.148
- Department of Education. (2016). K to 12 curriculum guide for English. Retrieved June 6, 2016, from http://www.deped.gov.ph/sites/default/files/page/2016/English%20CG_0.pdf
- Department of Education. (2015). *DepEd Order N. 32 S. 2015 - Adopting the indigenous peoples education curriculum framework*. <https://www.deped.gov.ph/2015/07/29/do-32-s-2015-adopting-the-indigenous-peoples-education-curriculum-framework/>

- Dorgu, T. E. (2015). Different teaching methods: A panacea for effective curriculum implementation in the classroom. *International Journal of Secondary Education*, 3(6-1), 77-87. doi: 10.11648/j.ijsedu.s.2015030601.13
- Dörnyei, Z., & Kubanyiova, M. (2014). *Motivating learners, motivating teachers: Building vision in the classroom*. Cambridge: Cambridge University Press.
- Dussault, A. (2018). 2018's top 8 classroom challenges, according to teachers. *Classcraft*. Retrieved from <https://www.classcraft.com/blog/features/8-teacher-challenges-2018/>
- Enerio, D. A. M. (2018). *PHL graduates' English edge seen narrowing*. Editor's Picks. <https://www.bworldonline.com/editors-picks/2018/02/09/126025/phl-graduates-english-edge-seen-narrowing/>
- Evertson, C. M., & Weinstein, C. S. (Eds.) (2006). *Handbook of classroom management. Research, practice, and contemporary issues*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc. Retrieved from <http://www.sciencedirect.com/reference/172234>
- Harmawan, V., Pangesti, M. K., & Rokhyati, U. (2019). Students' speaking ability through realia in JHS: A literature review. *International Journal of Scientific & Technology Research*, 8(10), 3644-3648. <http://www.ijstr.org/final-print/oct2019/Students-Speaking-Ability-Through-Realia-In-Jhs-A-Literature-Review.pdf>
- Hunter, M. A. (2018). *Interactive learning environments: A three-tiered model toward digital fluency*. Retrieved from <https://www.igi-global.com/chapter/interactive-learning-environments/205917>
- Hymes, D. H. (1972). *On communicative competence*. In Sociolinguistics, edited by J. B. Pride and Janet Holmes. Harmondsworth: Penguin Books. Retrieved from <http://www.homes.uni-bielefeld.de/sgramley/Hymes-1.pdf>
- Jahangard, A. (2007). Evaluation of EFL materials taught at Iranian public high schools. *The Asian EFL Journal*, 9(2), 130-150.
- Joffe, H., & Yardley, L. (2004). *Content and thematic analysis*. London: Sage Publications. Retrieved from https://www.academia.edu/38033117/Joffe_Yardley_2004_Content_Thematic_Analysis
- Karami, S., & Zamanian, M. (2016). A review of English teaching practices in the Philippines. *Journal of Language Sciences & Linguistics*, 4(1), 23-29, 2016. Retrieved from <https://www.researchgate.net/publication/327020285>
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive statistics. *International Journal of Academic Medicine*, 4(1), 60-63. doi:10.4103/IJAM.IJAM_7_18

- Kivunja, C. (2015). Exploring the pedagogical meaning and implications of the 4Cs “Super Skills” for the 21st Century through Bruner's 5E Lenses of Knowledge Construction to improve pedagogies of the new learning paradigm. *Creative Education*, 6, 224-239. doi.org/10.4236/ce.2015.62021
- Krashen, S. (2003). *Explorations in language acquisition and use: The Taipei lectures*. Portsmouth, NH: Heinemann.
- Leonen, J. N. (2018). Inquiry into decline of English skill of PH students sought. *Inquirer.Net*. Retrieved from <https://newsinfo.inquirer.net/969318/inquiry-into-decline-of-english-skill-of-ph-students-sought>
- Likitrattanaporn, W. (2014). Teaching phonological accuracy and communicative fluency at Thai secondary schools. *English Language Teaching*, 7(2), 6-11.
- MacIntyre, P. D., Burns, C., & Jessome, A. (2011). Ambivalence about communicating in second language: A qualitative study of French immersion students' willingness to communicate. *The Modern Language Journal*, 95 (1), 81-96. doi.org/10.1111/j.1540-4781.2010.01141.x
- Mart, C. T. (2012). Developing speaking skills through reading. *International Journal of English Linguistics*, 2(6), 91-96. [doi:10.5539/ijel.v2n6p91](https://doi.org/10.5539/ijel.v2n6p91)
- Martin, I. P. (2014). English language teaching in the Philippines. *World Englishes*, 33(4), 472-485. <https://doi.org/10.1111/weng.12108>
- McCombes, S. (2019). Descriptive research. *Scribbr*. Retrieved from <https://www.scribbr.com/methodology/descriptive-research/>
- Nunan D, 2004. *Task-based language teaching*. Cambridge: Cambridge University Press.
- Piascik, D. (2015). *Preparing America's students for college and career: Common core learning standards*. Retrieved from <http://www.mspiascik.weebly.com/common-core-learning-standards.html>
- Richards, J. C. (2006). *Communicative language teaching today*. New York: Cambridge University Press. Retrieved from <https://www.professorjackrichards.com/wp-content/uploads/Richards-Communicative-Language.pdf>
- Saefurrohman, S., & Balinas, E. (2016). English teachers classroom assessment practices. *International Journal of Evaluation and Research in Education*, 5(1), 82. doi.org/10.11591/ijere.v5i1.4526
- Schleicher, A. (2016). *Teaching excellence through professional learning and policy reform: Lessons from around the world*. Paris: International Summit on the Teaching Profession; OECD Publishing. doi: 10.1787/9789264252059-en
- Tomlinson, C. A. (2003). Deciding to teach them all. *Educational Leadership*, 61(2), 6-11.

- Toro, V., Camacho-Minucho, G., Pinza-Tapia, E., & Paredes, F. (2018). The use of the Communicative Language Teaching Approach to improve students' oral skills. *English Language Teaching*, 12(1), 110-118. doi.org/10.5539/elt.v12n1p110
- Ulla, M. B. (2018). English language teaching in Thailand: Filipino teachers' experiences and perspectives. *Issues in Educational Research*, 28(4), 1080-1094. Retrieved from <http://www.iier.org.au/iier28/ulla2.pdf>
- Zan, C., & Goh, C. (2011). Teaching oral English in higher education: Challenges to EFL teachers. *Taylor & Francis Group*, 1-13. doi.org/10.1080/13562517.2010.546527
- Zhu, D. (2012). Using games to improve students' communicative ability. *Journal of Language Teaching and Research*, 3(4), 801-805. <https://www.academypublication.com/issues/past/jltr/vol03/04/28.pdf>

The State of Special Education Based on the Practices/Methods that fall under the different Placements of the Least Restrictive Environment

Daniel Jr. C. Barlolong^{*}, Carmela S. Dizon

Angeles University Foundation, Angeles City, Philippines

*Email : barlolong.danieljr@auf.edu.ph

Abstract

There has always been a struggle in special education between catering to the specific needs of learners with special needs and ensuring that they get an education on par with that of learners that are receiving general education of the same age group (Zigmond et al., 2009). How are schools to provide for everyone if special education was not the answer (Florian, 2008)? In response to the contradictory character of special needs education, many have embraced inclusive education as an alternative (Florian, 2008). “Then, as now, there were no easy answers to these and other questions that have fueled debates about special versus inclusive education (Florian, 2008).” The ultimate goal of this academic paper was to explain the status of special education according to the different practices/methods when educating learners with special needs. This academic paper was able to identify the positive and/or negative repercussions of each practice/method, hence, it implies that SPED does not support the notion of "one-size-fits-all." The overall picture that emerges from this compilation of reviews is that SPED relies heavily on the concept of "case-by-case basis," as one practice/method may be helpful to certain learners with disabilities but at the same time ineffective for other learners with disabilities. A limitation of this academic paper is its dependence on information offered in research findings from earlier studies, which may differ from real information collected via surveys and interviews with the perspectives of different individuals involved in the application of the different practices/methods when educating learners with special needs. There has to be more research done in the future that takes into account the actual perspectives of different individuals (e.g., learners, parents, teachers, school administrators and/or staff) involved in the application of the different practices/methods when educating learners with special needs.

Keywords : Special Education, Least Restrictive Environment, Placements, Practices, Methods

1.Introduction

Learners with special needs who attend regular schools are often seen as a source of disruption to the comfort and flow of regular school programs (Efendi et al., 2022). The reason for this is because, learners with special needs are individuals who struggle in learning the content of the basic education curriculum; in order for them to realize their full potential and become successful adults, they require a modified and functional curriculum (Heward, 2003 in Labrague, 2018). A modified and functional curriculum where the content and methods of instruction must be tailored to the requirements of each learner (Mbewe et al., 2021).

Special Education (SPED) is a field of education that has been developed to accommodate their learning. The area of SPED comprises a wide variety of groups requiring varied services. Under the Individuals with Disabilities Education Act (IDEA), there are thirteen types of disabilities: “1) Autism Spectrum Disorder; 2) Deaf-Blindness; 3) Deafness; 4) Visual Impairment including Blindness; 5) Emotional Disturbance; 6) Hearing Impairment; 7) Intellectual Disability; 8) Multiple Disabilities; 9) Orthopedic Impairment; 10) Other Health

Impairment; 11) Specific Learning Disability; 12) Speech or Language Impairment; and 13) Traumatic Brain Injury” (*13 Categories of Disability Under IDEA Law - B.I.G. Solutions, LLC, 2021*).

“Special education means specially designed instruction which meets the unique needs of an exceptional child” (Hallahan & Kauffman, 1978). First editions of educational texts for pupils with special needs provide a description of the carefully planned instruction “in terms of ability or process training, behavior modification, developmental and ecological techniques, psychodynamic or psychoeducational teaching strategies, social learning approaches, and task analysis” (Kirk & Gallagher, 1979), or “in terms of teaching models - biophysical, psychological, behavioral, or environmental” (Ysseldyke & Algozzine, 1984).

Specialized resources, teaching methodologies, equipment, or even facilities may be required for special education to be successful in catering to the unique needs of learners with disabilities and being on par with the level of education obtained by learners in regular classes. (Zigmond et al., 2009). With this in mind, there has always been a struggle in special education between catering to the specific needs of learners with special needs and ensuring that they get an education on par with that of learners that are receiving general education of the same age group (Zigmond et al., 2009).

How are schools to provide for everyone if special education was not the answer (Florian, 2008)? In response to the contradictory character of special needs education, many have embraced inclusive education as an alternative; furthermore, if inclusive education was to be a process of reacting to individual differences within the structures and processes accessible to all learners, as opposed to something apart from them, what would the function of special education teachers be, and what should their expertise be (Florian, 2008)? To go into detail the following practices/methods are being practiced to educate learners with disabilities: 1) Self-contained or Special Class, 2) Itinerant Teaching, 3) Resource Room, 4) Integration/Mainstreaming, and 5) Inclusion (DepEd Ensures Inclusive Education for Learners with Special Needs - SUNSTAR, 2017) fall under the various placements of the Least Restrictive Environment (LRE), which adheres to one of the fundamental values built into the current state of special education which has the notion of providing equity for learners with disabilities (Rueda et al., 2000). According to Yell (1995), the “LRE is a principle stating that students with disabilities are to be educated in settings as close to regular classes as appropriate for the child.” “Then, as now, there were no easy answers to these and other questions that have fueled debates about special versus inclusive education (Florian, 2008).”

Discussing the state of special education provides an opportunity to learn more about the many ways in which this field is being put into practice from the many viewpoints of those involved. This will allow us to observe, from a variety of viewpoints: 1) the advantages and/or disadvantages of each practice/method that fall under the different placements of the LRE, and 2) identify the gains made by learners with disabilities who are exposed to at least one of these practices/methods. Moreover, with this academic discussion, the academic article aims to: 1) Explain the status of special education according to the different practices/methods, and 2) Identify the possible positive and/or negative repercussions of the different practices/methods that fall under the different placements of the LRE.

Literature Review and Research Gap(s)

2. Practices/Methods that fall under the different Placements of the Least Restrictive Environment

2.1 *Self-contained or Special Class*

According to Lobdell and Van Ness (1963), in a self-contained classroom, learners study in small groups with a special education teacher and are segregated from the regular classroom environment for all subjects. Being separate from regular classes, self-contained classrooms are designed for learners who have disabilities, these classes might be resource rooms located inside regular schools, or they could be their own schools or districts; the special educator in a self-contained classroom for learners with special needs works closely with and oversees one or more paraprofessionals (Cipriano et al., 2016).

As a summary, it is seen that learners attending classes in a self-contained classroom are totally segregated from the totality of everything that happens in a regular classroom. With that being said, learners in self-contained classrooms have fewer options for education and social interaction (O'Connor, 2012); therefore, learners in self-contained classrooms make minimal academic and behavioral improvement because they are not included in most large-scale effectiveness and response to intervention (RTI) trials (Lane, Wehby, Little, & Cooley, 2005; Siperstein, Wiley & Forness, 2011 in Cipriano et al., 2016).

2.2 *Itinerant Teaching*

In itinerant teaching, a special education teacher travels to meet the needs of learners in their homes or other educational settings (*DepEd Ensures Inclusive Education for Learners with Special Needs - SUNSTAR*, 2017). To better prepare learners for success in the regular classroom, at home, and in the wider community, itinerant teaching provides them one-on-one support wherever they happen to be (Luckner, 2020).

Itinerant teachers often cite working one-on-one or in small groups of pupils as a perk of their jobs; similarly, itinerant teachers often get to know their learners and their families over the course of many years, being able to aid learners and keep an eye on how they grow over a number of years (Luckner, 2020). On the contrary, itinerant teachers consistently report time restrictions as their primary challenge (Luckner & Ayantoye, 2013). The need of visiting several schools as a guest, with no permanent location, adds still another layer of complexity given that the atmosphere, policies, and organization of each school are unique; as a result, it's important to be both professional and approachable, with an awareness of cultural norms and the flexibility to adapt to new situations (Luckner, 2020).

2.3 *Resource Room*

According to Cartwright, Cartwright, and Ward (1981), to help students with their reading and arithmetic abilities, resource rooms were created. Several sorts of resource rooms, include "categorical, non-categorical, and cross-categorical," but they all have one thing in common: learners are partnered with an educator for a segment of an academic day (Olsen & Mercer, 1981).

Resource rooms for special education classes that were analyzed provided several options for special education; nonetheless, the degree to which these possibilities were converted into distinct educational the educational opportunities or experiences were, at best, negligible (Thurlow et al., 1983). In reality, specialized instruction in resource rooms observed seemed

remarkably comparable to standard classroom instruction in terms of learner duties and learner behavior (Thurlow et al., 1983). Other research has shown that active learning time becomes more crucial to learner performance as compared to scheduled time (Denham & Lieberman, 1980; Samuels, 1981); In this manner, learners using the current assortment of resource rooms fall short of their potential (Thurlow et al., 1983).

2.4 Integration/Mainstreaming

Mainstreaming places a learner with impairments in a typical classroom with supplementary aid (*DepEd Ensures Inclusive Education for Learners with Special Needs - SUNSTAR*, 2017). Integration can be either partially integrated or fully integrated; “In Partial Integration/Mainstreaming, a child with special needs enrolled in a special class is integrated with regular children in non-academic activities like work education, physical education, arts, school programs, etc, then gradually integrated in the academic subjects if qualified. Meanwhile, in Full Integration/Mainstreaming, a child with special needs sits in the regular class in all academic and non-academic subjects” (*DepEd Ensures Inclusive Education for Learners with Special Needs - SUNSTAR*, 2017).

The findings presented from empirical investigations conducted over the previous decade show the usefulness of mainstreaming in enhancing the performance, attitudes, and processes of learners with disabilities (Wang & Baker, 2015). Despite the fact that evidence in support of mainstreaming has been discovered in a number of recent reviews, mainstreaming remains controversial (Carlberg & Kavale, 1980; Madden & Slavin, 1982; Leinhardt & Palley, 1982; Semmel et al., 1979 in Wang & Baker, 2015), their positive results mostly only reflect academic achievements for learners with disabilities that were mainstreamed; additionally, statistics from such assessments indicate that mainstreaming is only advantageous for learners with certain categories of impairment. (Wang & Baker, 2015). Meanwhile, other research have shown that mainstreaming has a detrimental effect on social outcomes (Heller, 1981; Meyers et al., 1980; Madden & Slavin, 1982 in Wang & Baker, 2015).

2.5 Inclusion

“Inclusion is when students with disabilities receive their entire academic curriculum in the general education program” (Idol, 2006). Both a general education teacher and a special education teacher teach in an inclusive classroom; depending on the requirements of the students, paraprofessional teachers may also be on hand (Cipriano et al., 2016). The cornerstones of inclusion are as follows: 1. All learners attend their neighborhood school; 2. They are placed based on the principle of natural proportions; 3. There is a restructuring of learning and teaching to accommodate special education in the regular classroom; and 4. Learners are assigned to classrooms that correspond with their grade level and age group (Savich, 2008).

All learners with disabilities who have participated in an inclusive environment have benefited from it by learning new ways to communicate, interacting with others, and growing as individuals (Bennett, DeLuca, & Bruns, 1997 in Savich, 2008). Learners with disabilities who are allowed to attend classes in the general education environment are more likely to develop friendships and participate in peer engagement (Fryxell & Kennedy, 1995 in Savich, 2008). Meanwhile, critics of inclusion argue that placing learners with special needs in regular classes all day would prevent them from receiving the customized teaching they need (Andrews, Carnine, Coutinho, Edgar, Forness, Fuchs, et al., 2000; Macmillan, Gresham, & Forness, 1996 in Savich, 2008). Another argument against inclusion is that “general education teachers do not

possess the requisite training or qualifications to teach disabled students effectively” (Schumm & Vaughn, 1995 in Savich, 2008).

3. Conclusion

The ultimate goal of this academic paper was to explain the status of special education according to the different practices/methods. In light of this, providing free appropriate public education (FAPE) to children with disabilities has been a requirement of schools since 1975 when IDEA was passed (Rozalski et al., 2010). Additionally FAPE specified that “to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily” (IDEA, 20 U.S.C. § 1412). Despite mandates for schools to include students with impairments, ideally in the general education setting, it is recognized that certain children with disabilities cannot benefit from full inclusion without supplementary aids (Rozalski et al., 2010). Hence, this led to the creation of the different practices/methods in SPED that fall under the various placements of the Least Restrictive Environment (LRE), which adheres to one of the fundamental values built into the current state of special education which has the notion of providing equity for learners with disabilities (Rueda et al., 2000). “Nonetheless, it is important to recognize the LRE is not a specific placement nor is there a single definition of what the least restrictive environment (LRE) is for each student” (Crockett & Kauffman, 2005; McColl, 1992; Osborne, 1993; Osborne & DiMattia, 1994; Palley, 2006 in Rozalski et al., 2010).

As seen through the existence of the LRE and its placements that led to the creation of putting the different SPED practices/methods into the context of educating learners with disabilities, no one practice/method is perfect enough to be able to effectively cater to the different needs of the learners with disabilities. This academic paper was able to identify the positive and/or negative repercussions of each practice/method, hence, it implies that SPED does not support the notion of "one-size-fits-all." These different SPED practices/methods were put into practice to establish a connection between an individual's personal qualities and the characteristics of certain activity settings rather than as a placement in a physical environment, therefore defining the LRE and its entirety (Rueda et al., 2000).

Based on the literature review, it shows that: 1) Learners who attend classes in a self-contained classroom are completely isolated from everything that takes place in a regular classroom. As a result of this isolation, learners in self-contained classrooms make only a minimal improvement in their academic and behavioral performance. This is because learners in self-contained classrooms are not included in the majority of large-scale effectiveness and response to intervention (RTI) trials; 2) Working with learners individually or in small groups is commonly cited as a positive aspect of itinerant teaching, as is the opportunity to build relationships with students and their families over the course of many years. Rather, time constraints are regularly cited as the greatest difficulty for itinerant educators. Since the climate, rules, and structure of each school are different, it is essential to be both professional and friendly, with a knowledge of cultural norms and the ability to adjust to new circumstances, if you need to visit several schools as a guest but don't have a permanent site; 3) The resource room for special education courses that was evaluated offered a variety of alternatives for special

education; nevertheless, the extent to which these options were turned into different educational experiences or activities was, at best, insignificant. In actuality, special education in the resource rooms observed resembled regular education in terms of learner duties (e.g., readers, workbooks, worksheets, or activities) and learner behavior (e.g., reading, writing, and other academic activities). Engaged time is more important to academic success than permitted time; in this regard, the present resource rooms fall short for their learners; 4) The results of empirical studies undertaken over the last decade demonstrate that mainstreaming may improve the performance, attitudes, and processes of learners with disabilities. Despite the fact that a number of recent evaluations have found evidence in favor of mainstreaming, their positive results primarily reflect the academic achievements of learners with disabilities who were mainstreamed; furthermore, the data from these evaluations suggest that mainstreaming is only effective for learners in certain special education categories. Other studies have shown that mainstreaming has a negative impact on social outcomes; and 5) All learners with disabilities who have taken part in an inclusive setting have benefitted from it by expanding their linguistic and social skills and personal development. Learners with disabilities benefit from inclusive education because they are more likely to make friends and interact with their peers when they are included in the regular classroom environment. Others argue that learners with special needs would be better served by attending specialized courses rather than being integrated into general education classrooms given the claim that general education teachers lack the specialized knowledge and skills to adequately educate learners with special needs. The overall picture that emerges from this compilation of reviews is that SPED relies heavily on the concept of "case-by-case basis," as one practice/method may be helpful to certain learners with disabilities but at the same time ineffective for other learners with disabilities

A limitation of this academic paper is its dependence on information offered in research findings from earlier studies, which may differ from real information collected via surveys and interviews with the perspectives of different individuals involved in the application of the different practices/methods when educating learners with special needs. In addition, it was discovered that the majority of past research focused on practices/methods such as: 1) Itinerant Teaching, 2) Mainstreaming/Integration, and 3) Inclusive Education, whereas practices/methods such as: 1) Self-contained or Separate Class and 2) Resource Room had very limited research that could only shed light on their negative repercussions.

There has to be more research done in the future that takes into account the actual perspectives of different individuals (e.g., learners, parents, teachers, school administrators and/or staff) involved in the application of the different practices/methods when educating learners with special needs. Moreover, earlier studies suggested that: 1) To improve future studies, it would be helpful to compile assessments of standardized settings across different placements that may be used for comparisons (Lane et al., 2005); and 2) "Future research involving multiple self-contained schools and even some inclusive classrooms would enhance the responses pulling from a larger pool and different perspectives" (O'Connor, 2012).

References

- 13 Categories of Disability Under IDEA Law - B.I.G. Solutions, LLC.* (2021). B.I.G. Solutions, LLC. . <https://behavioralinspiredgrowth.com/special-ed-resources/categories-disability-idea-law/>
- Andrews, J.E., Carnine, D.W., Coutinho, M.J., Edgar, E.B., Forness, S.R., Fuchs, L. S., et al. (2000). Bridging the special education divide. *Remedial and Special Education*, 21(5), 258-260, 267.
- Bennett, T., & DeLuca, D., & Bruns, D. (1997). Putting inclusion into practice. *Exceptional Children*, 64(1), 115-131.
- Carlberg, C., & Kavale, K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. *The Journal of Special Education*, 14, 295-309.
- Cartwright, G., Cartwright, C.A., & Ward, M. *Educating special learners*. Belmont, CA: Wadsworth Publishing, 1981.
- Cipriano, C., Barnes, T. N., Bertoli, M. C., Flynn, L. M., & Rivers, S. E. (2016). There's no "I" in team: Building a framework for teacher-paraeducator interactions in self-contained special education classrooms. *Journal of Classroom Interaction*, 51(2), 4–19.
- Crockett, J. B., & Kauffman, J. M. (2005). The concept of the least restrictive environment and learning disabilities: Least restrictive of what? In J. M. Kauffman & D. P. Hallahan (Eds.), *The illusion of full inclusion: A comprehensive critique of a current special education bandwagon*, 2nd ed. Austin, TX: Pro-ed.
- Denham, C., & Lieberman, A. (Eds.). *Time to learn*. Washington, DC: National Institute of Education, 1980.
- DepEd ensures inclusive education for learners with special needs - SUNSTAR.* (2017). SunStar Publishing Inc. <https://www.sunstar.com.ph/article/128141/Business/DepEd-ensures-inclusive-education-for-learners-with-special->
- Efendi, M., Malang, U. N., Pradipta, R. F., Malang, U. N., Dewantoro, D. A., Malang, U. N., Ummah, U. S., Malang, U. N., Ediyanto, E., Malang, U. N., Hanafi, M., & Yasin, M. (2022). Inclusive Education for Student with Special Needs at Indonesian Public Schools. *International Journal of Instruction*, 15(2), 967–980.
- Florian, L. (2008). Special or inclusive education: Future trends. *British Journal of Special Education*, 35(4), 202. <https://doi.org/10.1111/j.1467-8578.2008.00402.x>
- Fryxell, D., & Kennedy, C.H. (1995). Placement along the continuum of services and its impact on students' social relationships. *Journal of the Association for Persons with Severe Handicaps*, 20, 259-269.
- Hallahan, D., & Kauffman, J. (1978). *Exceptional Children: Introduction to Special Education*.
- Heller, K., (1981). Secondary education for handicapped students: In search of a solution. *Exceptional Children*, 47,(8), 582- 598.
- Individuals with Disabilities Education Act of 1990, 20 U.S.C. § 1401 et seq.
- Idol, L. (2006). Toward Inclusion of Special Education. *Remedial and Special Education*, 27(2), 77–94.

- Kirk, S., & Gallagher, J. (1979) Educating exceptional children, third edition. Boston: Houghton Mifflin Company
- Labrague, C. B. (2018). Children with Special Education Needs in the Public Elementary Schools of Catbalogan City, Philippines. *Journal of Academic Research*, 3(3), 25–37. https://www.researchgate.net/publication/331433036_Children_with_Special_Education_Needs_in_the_Public_Elementary_Schools_of_Catbalogan_City_Philippines
- Lane, K. L., Wehby, J. H., Little, M. A., & Cooley, C. (2005). Students educated in self-contained classrooms and self-contained schools: Part II-How do they progress over time? *Behavioral Disorders*, 30, 363-374.
- Leinhardt, G., & Palley, A. (1982). Restrictive educational settings: Exile or haven? *Review of Educational Research*, 52, 557- 578.
- Lobdell, L.O., & Van Ness W.J. (1963). The Self-Contained Classroom in the Elementary School. *The Elementary School Journal*, 63(4), 212-217
- Luckner, J. L., & Ayantoye, C. (2013). Itinerant teachers of students who are deaf or hard of hearing: Practices and preparation. *Journal of Deaf Studies and Deaf Education*, 18(3), 409-423.
- Luckner, J. L. (2020). Itinerant Teaching. • *Itinerant Teaching* •, 12(1), 1–8.
- Macmillan, D.L., Gresham, F.M., & Forness, S.R. (1996). Full inclusion: An empirical perspective. *Behavioral Disorders*, 21(2), 145-159.
- Madden, N. A., & Slavin, R. E. (1982). Count me in: Academic achievement and social outcomes of mainstreaming students with mild academic handicaps. Center for the Social Organization of Schools: The Johns Hopkins University Report No. 329.
- Mbewe, G., Kamchedzera, E., & Kunkwenzu, E. D. (2021). Exploring implementation of national special needs education policy guidelines in private secondary schools. *IAFOR Journal of Education*, 9(1), 95–111. <https://doi.org/10.22492/ije.9.1.06>
- McCull, A. (1992). Placement in the least restrictive environment for children with disabilities. *School Law Bulletin*, 26, 13–21
- Meyers, C. E., MacMillan, D. L., & Yoshida, R. K. (1980). Regular class education of EMR students: From efficacy to mainstreaming. In J. Gottlieb (Ed.), *Educating mentally retarded persons in the mainstream*. Baltimore, MD: University Park Press.
- O’connor, G. (2012). *Self Contained Classrooms in Today’s Schools*. <http://libguides.sjfc.edu/citations>.
- Olsen, J., & Mercer, C.D. Public school programs for emotionally handicapped students. In B. Algozzine, R. Schmid, & C.D. Mercer (Eds.), *Childhood behavior disorders: Applied research and educational practice*. Rockville, MD: Aspen, 1981.
- Osborne, A. G. (1993). The IDEA’s least restrictive environment mandate: Implications for public policy. *Education Law Reporter*, 74, 369–380.
- Osborne, A. G., & DiMattia, P. (1994). The IDEA’s least restrictive environment mandate: Legal implications. *Exceptional Children*, 61, 6–14

- Palley, E. (2006). Challenges of rights-based law: Implementing the least restrictive environment mandate. *Journal of Disability Policy Studies*, 16, 229–235.
- Rozalski, M., Stewart, A., & Miller, J. (2010). How to determine the least restrictive environment for students with disabilities. *Exceptionality*, 18(3), 151–163.
<https://doi.org/10.1080/09362835.2010.491991>
- Rueda, R., Gallego, M., & Moll, L. (2000). The Least Restrictive Environment A Place or a Context? *Remedial and Special Education*, 21, 9.
- Samuels, S.J. Characteristics of exemplary reading programs. In J.T. Guthrie (Ed.), *Comprehension and teaching: Research reviews*. Newark, DE: International Reading Association, 1981.
- Schumm, J.S., & Vaughn, S. (1995). Getting ready for inclusion. *Learning Disabilities and Research and Practice*, 10, 169-179.
- Semmel, M. I., Gottlieb, J., & Robinson, N. M. (1979). Mainstreaming: Perspectives on educating handicapped children in the public school. In D. C. Berliner (Ed.), *Review of research in education* (Vol. 7, pp. 223-279). Washington, DC: American Educational Research Association.
- Siperstein, G. N., Wiley, A. L., & Fomess, S. R. (2011). School context and the academic and behavioral progress of students with emotional disturbance. *Behavioral Disorder*, 172-184.
- Savich, C. (2008). Inclusion: The Pros and Cons--A Critical Review. *Online Submission*, 1–21.
<http://eric.ed.gov/ERICWebPortal/recordDetail?accno=ED501775>
- Thurlow, M. L., Ysseldyke, J. E., Graden, J. L., & Algozzine, B. (1983). What's "Special" about the special education resource room for learning disabled students? *Learning Disability Quarterly*, 6(3), 283–288. <https://doi.org/10.2307/1510439>
- Wang, M., & Baker, E. (2015). *Mainstreaming Programs: Design Features and Effects*.
- Ysseldyke, J., & Algozzine, B. (1984). *Introduction to special education*. Boston: Houghton Mifflin Company
- Zigmond, N., Kloo, A., & Volonino, V. (2009). What, Where, and How? Special Education in the Climate of Full Inclusion. *Exceptionality*, 17(4), 189–204.
<https://doi.org/10.1080/09362830903231986>

Context and Transition of Leadership Views in the Use of Technology in Education

Ednar Rivera Corpuz*, Jesse M. Balinas

Angeles University Foundation, Angeles City, Philippines

*Email : corpuz.ednar@auf.edu.ph

Abstract

The ultimate goal of this review is to retrospect the collective views and context of leadership over the past years including how leadership styles evolved with the advent of technology. From the review, it was noted that qualities, attributes, and views of leadership change throughout time yet a clear concept of this phenomenon does not converge within a clear picture and is still fragmented. While pedagogy gears toward the advancement of technology, new competencies and styles of leadership are manifested in the digital world. This irreversible transformative change makes leaders continually adapt, and rethink ways to lead in the organization but this is accompanied by the question of which skills exactly are needed for these modifications. The review may shed light on the views and context of leadership vis-à-vis the growing interest in technology in teaching.

Keywords : Leadership styles, Information Communication Technology, E-learning

1.Introduction

The role of leaders in the school's organization had been an interesting topic in the areas of research in pedagogy (Golberg, 2001; Knapp et al., 2006; Marion & Gonzales, 2013; Shaturaev, & Bekimbetova, 2021). Since the educational system is facing a continuous paradigm shift throughout centuries, questions about the changes in leadership styles and management had been an interesting topic. These modifications in pedagogy were termed "transformative change" (Varadharajan & Buchanan, 2021). These transformative changes, along with public policies and leadership arising from the past, needed to be understood and reflected upon based on their contemporary ideas and challenges which may give a different lens for potential action.

Educational leaders make no exemption to these rapid changes. Over the past years, researchers have argued that leadership is geared toward the interposition of elements characterized by the presence of Information Communication Technology (ICT) which resulted in new ideas of leadership (Avolio & Kahai, 2003; Avolio et al., 2014; Cortellazo et al., 2019; Dasgupta, 2011). Adjacent to the early views that pedagogy is transitioning to the digital arena, the definitive definition of technology used in this paper embraces the idea that technology is not just the presence of technology available rather it is the selection and utilization of technologies for learning and new knowledge (Davis, 2003; Lakhana, 2014). On the other hand, Hensellek (2020) even noted that machinery and methodologies should not be the only areas that must adapt to changes, but also the methods of how leaders manage their people and their organization. With these changes, one interesting learning theory introduced in 2004 is the "*Theory of Connectivism*" introduced by George Siemens. Siemens (2004) noted that for the past twenty years, technology has shaped and reorganized how we communicate, learn and live. The researcher further describes connectivism as the theory that integrates previous thinking [Social Constructivism, Vygotsky, 1968]. Philosophically speaking, the idea of connectivism is anchored on one of the philosophical foundations in pedagogy- pragmatism. Pragmatism as a

philosophy believes that human actions are based on his past; that is, the reality is not static and it continually changes (Goldkuhl, 2012; Morgan, 2014). Similarly, pragmatism holds the belief that the consequences of human actions from the past could predict similar actions in the future (Morgan, 2014).

The Fourth Industrial Revolution drive the advancement of knowledge and technology (World Economic Forum, 2016). Additionally, leading researchers have argued the notion that the fourth industrial revolution will shape the future through its impacts on government, health, education, and business (Avis, 2018; Kimani et al., 2020; Morgan, 2019; Penprase, 2018). With the growing ideas of technology in the working environment due to different factors, the needs and demands of the leaders to manage an organization also changed dramatically (Voelkle & Hecht, 2020). Alongside these changes and in the age of pragmatic acceleration, new competencies and new styles of leadership manifested in the digital world (Petry, 2018). One pressing concern in the transition of leadership is the use of technology and its notion and framework have been existing in the areas of business (Petry, 2018; Mihardjo et al., 2019) and economy (Cahyadi & Magda, 2021) yet very limited literature delve on the area of pedagogy. The present paper aims to study the transition of leadership views in education more specifically in the age of technology since leadership must not be viewed as a static idea but must be seen as a volatile notion that changes through time (Rogers et al., 2014).

Literature Review and Research Gap(s)

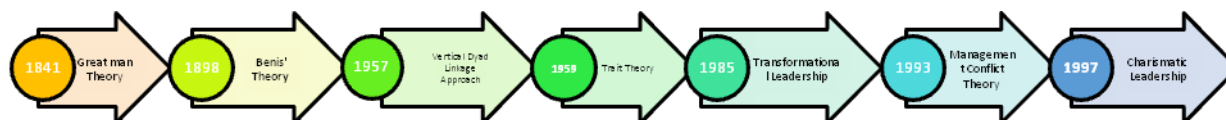
2. Transition of Leadership views in the use of Technology in Education

2.1 Context and views of leadership in the early years (1800-the 1900s)

Past research dealt with the concept of leadership including its dynamics, theories, and styles. In 1841, the “Great Man” theory of Carlyle in 1841 describing that leaders are born and are not made. Carlyle (1841) further claimed that leaders are predestined to lead and they possess attributes such as personal charisma, political skills, wisdom, and intelligence superior to others and consequently allow them to influence and have power over other people. These ideas were supported by Mann (1959) in his concept known as "Trait Theory" which gives importance to certain attributes of leaders such as intelligence, personality, and effectiveness. On the other hand, Benis (1898) argues that someone becomes a leader not of his innate personal attributes but on how his qualities are being developed. In the early research of Dansereau, Graen, and Haga (1975) they postulated that effective leaders should develop and maintain a strong relationship with their followers. Bass (1985) on the other hand viewed leadership as transformational. That is, leaders must elevate the interest of their followers and generate awareness and acceptance of the organization’s mission.

In the early account of Ross in 1993, the researcher underscored the two important characteristics of a leader: it is a multidirectional influence and non-coercive behavior. Ross (1993) explained that multidirectional influence must flow in all directions of the organizations and not just on the top down. Being multidirectional means that everyone must possess leadership influence and must interact with one another. In addition to the growing views of leadership, Bass (1997) viewed that leaders must possess the charisma to manage the organization well. Charismatic leadership is the effect of a values-based and emotion-laden style known to cope with cognitive and emotional challenges that produce positive outcomes in the organization. In recent years, collective views of leadership traits and behaviors had taken place and changes through time. Understanding different forms and views of leadership is essential, especially in crafting and developing training programs. Most importantly, gaining an

understanding of these collective views of leadership shapes an organization's capacity in pursuing leadership excellence.



Context and Views of Leadership Style	Qualities of a Leader
<ul style="list-style-type: none"> • Great Man Theory (1841) • Benis' Theory (1898) • Vertical Dyad Linkage Approach(1957) • Trait Theory (1959) 	<ul style="list-style-type: none"> • Leaders are born and not made • Leaders are being developed. • Leaders should develop and maintain a strong relationship with their followers. • Leaders are imbued with attributes of leaders such as intelligence, personality, and effectiveness superior to others.
<ul style="list-style-type: none"> • Transformational Leadership (1985) • Management Conflict Theory (1993) 	<ul style="list-style-type: none"> • Leaders must elevate the interest and acceptance of the organization's mission. • Leadership must be multidirectional influenced and must flow in all directions of the organizations and not just on the top down.
<ul style="list-style-type: none"> • Charismatic Leadership (1993) 	<ul style="list-style-type: none"> • Leaders must possess the charisma to manage the organization and management is the effect of a values-based and emotion-laden style known to cope with cognitive and emotional challenges that produce positive outcomes in the organization.

2.1 Context and Views of leadership alongside technology

Leadership should be seen as a continuous opportunity for learning, as well as in developing adaptive capabilities, necessary for successful management (Robertson, 2011). Leadership in context is the ability to positively influence others in attaining a common goal reflected in the vision and mission, including the policy of the institution or organization (Adnan & Valliappan, 2019). Available studies regarding leadership noted a trend in the relationship between leaders and the organization in the presence of technology (Anderson & Dexter, 2005; Courtney; 2018; Davies, 2010; Larson & DeChurch, 2020; Thite, 2000). Makina (2006) also argues in their study that a shift from pre-digital management to a new type of leadership emerged with the advent of technology. This emerging phenomenon was labeled as E-leadership and served as the source of several studies to understand the metamorphosis it exhibits (Torre & Sarti, 2020). E-leadership is more than a nomenclature as it paves the way for understanding new styles of leadership along with the increasingly disruptive changes associated with the influence of technological ideas. Hence, forces leaders to rethink ways to lead anywhere regardless of the situation, time, and place (Haddun & McAllen, 2018).

Technology changed the concept of leadership and organization irreversibly. The evolution of leadership alongside technology shapes organizations' processes and work environments, generating new challenges that leaders need to face (Cortellazzo, Bruni, & Zampieri, 2019). One notable limitation of the virtual world is the absence of direct and informal contact including other elements such as facial expression and body language. This also means that leaders must sync with the changes in tasks and work processes including communication strategies as it is nearly impossible to lead using the traditional method of leadership (Woie, 2022). In a similar vein, physical factors connecting to distance are interrelated with social and

emotional aspects which are challenges currently faced by leaders managing in the virtual world (Marisson-Smith & Ruiz, 2020).

Another pressing concern of E-leadership is the multiplicity of changes it currently encountered. These include the aspect of organizational culture, management of time, and use of ICT (Arnaut, 2021; Dwianto, 2021). This irreversible shift and changes in terms of leadership in the presence of technology require a thorough review and further investigation. Responding and mastering new concepts in leadership need necessary adjustments, but this is accompanied by the question of which skills exactly are needed for these modifications.

2.1 Context and Views of Leadership in the 21st-Century Learning

The realm of education had drastically changed due to the Fourth Industrial Revolution. One of these highlights is the drive toward E-learning (World Economic Forum, 2016). Although E-learning encompasses issues based on its definitive definition, it has been a part of the new dynamic characteristics of the 21st-century teaching and learning process (Mayadas, Miller & Sener, 2015). Over the years, E-learning gained positive results and improvement of learning among students (Lestari, 2019; Gumantan, Nugroho, & Yuliandra, 2021; Vitoria, Mislinawati & Nurmasyitah, 2018). Although positive impacts were seen in the usage of E-learning (Clark, 2020; Gunawardena & McIsaac, 2013; Raja & Nagasubramani, 2018), factors such as academic, leadership (Shikokoti, 2021), and technical challenges were among the main challenges and limitations faced by the leaders in the digital learning (Ja'ashan, 2020).

Another limitation of leadership in the digital age is that its concept has been existing in other disciplines such as in business (Petry, 2018; Mihardjo et al., 2019) and economy (Cahyadi & Magda, 2021) but very little literature on the area of pedagogy. Toleikienė et al., (2020) also noted that research available on the consequences of leadership in the technological era in the public sector remains scares and limited. It is then fundamental that traditional leaders leading in 21st-century teaching and learning must be given attention since their experience differs from the past and may express challenges and limitations in managing the organization and their people in the digital world (Kirchner et al., 2021).

Advancement in technology is seen as a vital component in the current educational setting. This viewpoint, along with the disruptive changes, challenges leaders to adjust in the field of pedagogy. With this, school leaders belonging to the pre-digital pedagogy find themselves adjusting while leading in 21st-century learning. Despite the increasing interest in leadership in 21st-century learning, the relationship between leadership styles and technology has accumulated in a fragmented fashion. These fragmented ideas made researchers to struggle in detecting larger patterns of change that resulted from the digital revolution. Additionally, with the fast-changing advancement and implementation of digital technology, there is a necessity to continuously update and reflect on the latest contributions brought about by these disruptive changes.

3. Conclusion

The ultimate goal of this review is to retrospect the collective views and context of leadership over the past years including how leadership styles evolved with the advent of technology. Although the paper examined several research from the past, it is still limited and fragmented. Therefore, this paper aimed to shed light and see beneficial of understanding how leadership evolved along with the advancement of technology. First, the qualities, attributes, and

views of leadership have changed throughout time. Scholars over the past years tried to understand this multifaceted phenomenon, but only dispersed ideas were accumulated and did not converge within a clear picture. Technology is one of the most notable changes and development in leading an organization, However, advancement in technology can be both transformative and disruptive (McLeod, 2015). Kirchner et al. (2021) suggested that leaders' experiences from the past may serve as an avenue to new learning, especially in how they were able to cope with the changes and adapt their leadership styles as virtual leaders. With the growing demands for the use of technology in the working environment, the demands, ways, and needs of the leaders in managing the organization also changed dramatically (Voelkle & Hecht, 2020). With these irreversible changes, it is necessary to reflect and update our knowledge on these growths and developments made by the leaders throughout the years in conjunction with technology.

One of the drawbacks of this paper is that it examined the context and views of leadership in the past years along with the proliferation of technology in pedagogy. The ways leaders adapt under the context of pressing health concerns in the country along with the use of technology could be more enlightening findings in the area of research in pedagogy. Covid19 pandemic shocked many institutions and organizations, this paradigm shift has an impact not only on the work culture of the organization but also on the style of leadership being carried by the leaders. In a qualitative study conducted by Contreras Baykal, and Abid (2020) among small and medium schools in Indonesia, they noted that many organizations are not prepared when caught by the Covid -19 pandemic.

Future research should examine how leadership styles evolved in one of the extraordinary health concerns in the country. More specifically, how leaders manage their organization and people virtually during the Covid-19 pandemic. The different coping mechanisms, strategies, and limitations may also be explored and looked into as they may give new gems of knowledge in the area of pedagogy and leadership. Finally, this paper hopes to contribute to the ongoing discussion of literature regarding the views and context of leadership vis-à-vis the growing interest in technology in teaching and has laid a foundation for future research directions.

References

- Adnan, S. N. S. M., & Valliappan, R. (2019). Communicating shared vision and leadership styles towards enhancing performance. *International Journal of Productivity and Performance Management*.
- Anderson, R. E., & Dexter, S. (2005). School technology leadership: An empirical investigation of prevalence and effect. *Educational administration quarterly*, 41(1), 49-82.
- Arnaut, N. (2021). Leadership as Practice within a Remote Working Environment: Interview Study.
- Avis, J. (2018). Socio-technical imaginary of the fourth industrial revolution and its implications for vocational education and training: A literature review. *Journal of Vocational Education & Training*, 70(3), 337-363.
- Avolio, B. J., and Kahai, S. (2003). Adding the E to E-leadership: how it may impact your leadership. *Organize. Dynamics* 31, 325–338. doi: 10.1016/S0090-2616(02)00133-X

- Avolio, B. J., Sosik, J. J., Kahai, S. S., and Baker, B. (2014). E-Leadership: Re-Examining transformations in leadership source and transmission. *Leadership Quart.* 25, 105–131. doi: 10.1016/j.leaqua.2013.11.003.
- Bass, B.M. (1997). Does the transactional–transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*, Vol.52, No.2, pp.130-139
- Benford, R. D., & Snow, D. A. (2000). Framing processes and social movements: An overview and assessment. *Annual review of sociology*, 611-639.
- Bennis, W. G. (1989). *On becoming a leader*. Addison-Wesley Publishing Company, Inc.
- Cahyadi, A., & Magda, R. (2021). Digital leadership in the economies of the G20 countries: A secondary research. *Economies*, 9(1), 32.
- Clark, J. T. (2020). Distance education. In *Clinical engineering handbook* (pp. 410-415). Academic Press.
- Cortellazzo, L., Bruni, E., and Zampieri, R. (2019). The role of leadership in a digitalized world: a review. *Front. Psychol.* 10:1938. doi: 10.3389/fpsyg.2019.01938.
- Contreras, F., Baykal, E., & Abid, G. (2020). E-leadership and teleworking in times of COVID-19 and beyond: What we know and where do we go. *Frontiers in Psychology*, 11, 590271.
- Courtney, S. J. (2018). Privatizing educational leadership through technology in the Trumpian era. *Journal of Educational Administration and History*, 50(1), 23-31.
- Dansereau Jr, F., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: A longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13(1), 46-78. [https://doi.org/10.1016/0030-5073\(75\)90005-7](https://doi.org/10.1016/0030-5073(75)90005-7).
- Dasgupta, P. (2011). Literature review: E-leadership. *Emerg. Leadership J.* 4, 1–36. doi: 10.1109/tmag.2013.2278570.
- Davies, P. M. (2010). On school educational technology leadership. *Management in education*, 24(2), 55-61.
- Davis, W. C. (2003). *Interpreting a meaning of technology*. University of Virginia.
- Dwianto, R. A. (2021). Assessing E-Leadership in the Public Sector during the COVID-19 Pandemic in ASEAN. *JKAP (Jurnal Kebijakan dan Administrasi Publik)*, 25(2), 90-111.
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harvard University Press.
- Goldberg, M. F. (2001). Leadership in education: Five commonalities. *Phi Delta Kappan*, 82(10), 757-761.
- Goldkuhl, G. (2012). Pragmatism vs interpretivism in qualitative information systems research. *European journal of information systems*, 21(2), 135-146.
- Gumantan, A., Nugroho, R. A., & Yuliandra, R. (2021). Learning during the covid-19 pandemic: Analysis of e-learning on sports education students. *Journal Sport Area*, 6(1), 51-58.
- Gunawardena, C. N., & McIsaac, M. S. (2013). Distance education. In *Handbook of research on educational communications and technology* (pp. 361-401). Routledge.

- Haddud, A., & McAllen, D. (2018). Digital workplace management: Exploring aspects related to culture, innovation, and leadership. In Proceedings of the Portland International Conference on Management of Engineering and Technology (PICMET) (pp. 1–6). Honolulu: HI. IEEE. <https://doi.org/10.23919/PICMET.2018.8481807>
- Ja'ashan, M. M. N. H. (2020). The Challenges and Prospects of Using E-learning Among EFL Students in Bisha University. *Arab World English Journal*, 11(1), 124-137.
- Kimani, D., Adams, K., Attah-Boakye, R., Ullah, S., Frecknall-Hughes, J., & Kim, J. (2020). Blockchain, business and the fourth industrial revolution: Whence, whither, wherefore and how?. *Technological Forecasting and Social Change*, 161, 120254.
- Kirchner, K., Ipsen, C., & Hansen, J. P. (2021). COVID-19 leadership challenges in knowledge work. *Knowledge Management Research & Practice*, 19(4), 493-500.
- Knapp, M. S., Swinnerton, J. A., Copland, M. A., & Monpas-Huber, J. (2006). Data-informed leadership in education. *Center for the Study of Teaching and Policy*.
- Lakhana, A. (2014). What is educational technology? An inquiry into the meaning, use, and reciprocity of technology. *Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie*, 40(3).
- Larson, L., & DeChurch, L. A. (2020). Leading teams in the digital age: Four perspectives on technology and what they mean for leading teams. *The Leadership Quarterly*, 31(1), 101377.
- Lestari, T. W. (2019). Kahoot! And Quizizz: A Comparative Study on The Implementation Of E-Learning Application Toward Students? Motivation. *Karya Ilmiah Dosen*, 2(2).
- Makina, A. (2016). The Theory of Connectivism in Enhancing Leadership/Management Competences in E-Learning in Higher Education. *African Educational Research Journal*, 4(4), 152-159.
- Mann, R. D.(1959). A review of the relationship between personality and performance in small groups, *Psychological Bulletin*, Vol.56, No.4, pp. 241-270.
- Marion, R., & Gonzales, L. D. (2013). *Leadership in education: Organizational theory for the practitioner*. Waveland press.
- McLeod, S. (2015). The challenges of digital leadership. *Independent School*, 74(2), n2.
- Mihardjo, L., Sasmoko, S., Alamsjah, F., & Elidjen, E. (2019). Digital leadership role in developing business model innovation and customer experience orientation in industry 4.0. *Management Science Letters*, 9(11), 1749-1762.
- Mihardjo, L., Sasmoko, S., Alamsjah, F., & Elidjen, E. (2019). Digital leadership role in developing business model innovation and customer experience orientation in industry 4.0. *Management Science Letters*, 9(11), 1749-1762.
- Morgan, J. (2019). Will we work in twenty-first century capitalism? A critique of the fourth industrial revolution literature. *Economy and Society*, 48(3), 371-398.
- Morgan, D. L. (2014). Pragmatism as a paradigm for social research. *Qualitative inquiry*, 20(8), 1045-1053.
- Morrison-Smith, S., & Ruiz, J. (2020). Challenges and barriers in virtual teams: a literature review. *SN Applied Sciences*, 2(6), 1-33.

- Penprase, B. E. (2018). The fourth industrial revolution and higher education. *Higher education in the era of the fourth industrial revolution*, 10, 978-981.
- Petry, T. (2018). Digital leadership. In *Knowledge management in digital change* (pp. 209-218). Springer, Cham.
- Raja, R., & Nagasubramani, P. C. (2018). Impact of modern technology in education. *Journal of Applied and Advanced Research*, 3(1), 33-35.
- Robertson, J. (2011). Partnership in Leadership and Learning. In J. Robertson & H. Timperley (Eds.), *Leadership and Learning* (pp. 213-226). London, UK: Sage.
- Rogers, E. M., Singhal, A., & Quinlan, M. M. (2014). Diffusion of innovations. In *An integrated approach to communication theory and research* (pp. 432-448). Routledge.
- Rost, J.C. (1993). *Leadership for the Twenty-First Century*. Westport: Praeger.
- Shaturaev, J., & Bekimbetova, G. (2021). The difference between educational management and educational leadership and the importance of educational responsibility. *InterConf*.
- Shikokoti, H., Okoth, U., & Chepkonga, S.(2021). Influence of Leadership and Administration on Competence Based Curriculum and Digitalization In Higher Education.
- Siemens, G. (2004). Connectivism: A learning theory for the digital age. *Instructional Technology and Distance Education*, 2(1), p. 3–10.
- Taylor, C. (2004). *Modern social imaginaries*. Duke University Press.
- Thite, M. (2000). Leadership styles in information technology projects. *International Journal of Project Management*, 18(4), 235-241.
- Torre, T., & Sarti, D. (2020). The “way” toward e-leadership: Some evidence from the field. *Frontiers in Psychology*, 11, 554253.
- Varadharajan, M., & Buchanan, J. (2021). Future Work Landscape. In *Career Change Teachers* (pp. 31-45). Springer, Singapore.
- Vitoria, L., Mislinawati, M., & Nurmasiyah, N. (2018, September). Students’ perceptions on the implementation of e-learning: Helpful or unhelpful?. In *Journal of Physics: Conference Series* (Vol. 1088, No. 1, p. 012058). IOP Publishing.
- Voelkle, M. C., & Hecht, M. (2020). Cross-Sectional Research Designs. In *Encyclopedia of Personality and Individual Differences* (pp. 962-966). Cham: Springer International Publishing.
- Vygotsky, L. S. (1968). *Thought and language* (newly revised, translated, and edited by Alex Kozulin).
- Woie, K. L. (2022). *Is Communication Still the Key? A study of how nonverbal communication, or lack thereof, influences leaders and organizations in the age of digitalization* (Master's thesis).
- World Economic Forum (WEF) (2016). *The Future of Jobs: Employment, skills, and workforce strategy for the Fourth Industrial Revolution*.

The Ecopedagogical Competence of Marian Educators: Prospect for Ecoliteracy, Ecophilia ad Green Campus

Mark C. Balonquita , Haydee D. James, Sherwin A. Marciano
 Christopher Allen S. Marquez, Felipe V. Nantes, Jr.*
 Saint Mary's University, Bayombong, Nueva Vizcaya, Philippines
 *Email : fnantes@smu.edu.ph

Abstract

Despite the calls for environmental care and protection in the midst of sustainable development, there still exists an unceasing neglect and indifference resulting to environmental catastrophes both locally and globally. One of the ways to respond to this urgent concern is a critical and transformative environmental pedagogy termed in this paper as ecopedagogy. There is a need to educate the citizens on their critical duty to love, care and protect the environment. Educational institutions especially educators have a herculean role in intensifying the promotion of environmental care. This study sought to assess the ecopedagogical competence of educators in a university. It employed the quantitative and qualitative methods using a survey questionnaire. Most of the respondents were females aged 31-40 years old and from the tertiary department. The data revealed that Marian educators have good experience integrating environmental education topics into their courses or subjects. Grouping the respondents according to sex, however, yielded that they have a low level of eco-pedagogical competence. On the other hand, there is a moderately high level of eco-pedagogical competence when grouped according to school. Marian educators differ in their experiences integrating environmental topics or ideas into their courses or subjects when grouped according to sex, age, school, and years of teaching in SMU. Among the demographic variables, only age shows a significant relationship with eco-pedagogical competence signifying a strong positive correlation between the two. Most of the Marian educators practice the CHSF minute and integrate environmental issues in their class discussions. These assessment results shall serve as a basis for more intensified drive for ecoliteracy, a more focused promotion of ecophilia and a firmer foundation for a green campus campaign.

Keywords : critical theory, environmental education, ecoliteracy, ecopedagogy, ecophilia, environmental pedagogy

Introduction

The severity and frequency of the natural calamities are real impacts of climate change (Bannari, et.al., 2017). As a response, mitigation and adaptation efforts are being done by various sectors of the society. Different parts of the globe have been conceptualizing and reconceptualizing means to address the phenomenon. In December 2015, countries signed the Paris Agreement, the most important pact for international cooperation to tackle climate change (UNTC, 2015). In the same year, Pope Francis (2015) issued *Laudato Si*, an encyclical on climate change and inequality. He urged everyone to care for our common home. The Holy Father explores social trends and ideologies that caused environmental problems and elaborates integral ecology as a solution to the socio-environmental issues. Every country shall take part in this effort. According to the Intergovernmental Panel on Climate Change (IPCC), efforts to reduce carbon emissions especially from the biggest-emitting countries like China, India, Russia, Japan, etc. is doubly needed (Yi, 2022).

The Philippines, one of the most vulnerable countries to climate change weather events likewise responds to climate change by creating policies such as the adoption of Climate Change Act and the creation of the Climate Change Commission with the aim of accelerating reforms for the management of the accelerating climate change impact in the country (World Bank, 2022). Environmental education is one of the ways to respond to the global nature of environmental problems. It is one of the means to shift the pattern of human development into a more healthy, just and sustainable trajectory.(Clover, 2000).

Re-thinking the meaning and implications of sustainable development is also crucial in the agenda for the mitigation of the effects of climate change. The UN Sustainable Goal 13 aims to take urgent action to combat climate change and its impact. One of the steps is to integrate climate change measures into national policies, awareness raising, and the improvement of education (UN, 2022).

Despite the intensified collective pledge of global, national and local levels to slow global warming, the threat of the devastating consequences of climate change is still impending (Maizland, 2021). Contrarily, the threat is no longer just impending but it is already a reality. The effects are undeniably being felt worldwide. Hence, there is a need for more intensified awareness program as a response to this perilous phenomenon. One of the ways to respond to this urgent concern is through through a critical and transformative environmental pedagogy termed as ecopedagogy.

According to Misiasek (2016), the critical tenet of ecopedagogy in viewing socio-environmental phenomena holistically through multiple perspectives and disciplines enforces the need for biocentric viewpoints of teaching. Although the framing and objectives of ecopedagogies are diverse and complicated, the important elements of problem-posing teaching methods, democratically real conversation, praxis-based teaching, conflict-based teaching, and teaching spaces as research spaces will all be discussed.

The existing studies on educators' competence on environmental education serve as inspiration in assessing the ecopedagogical competence of Marian educators based on the mandates on environmental education in the country.

Ecopedagogy is a critical environmental pedagogy which focuses in understanding the connections between social conflict and environmentally harmful acts carried out by humans. These connections are often politically hidden in education. Ecopedagogy, while being pluralistic, is in its essence defined as a critical, transformative environmental pedagogy centered on increasing social and environmental justice. Its ultimate aim is to find a sustainable balance between conflicting goals of diverse notions of human progress and environmental well-being. (Misiasek, 2016)

One of the concerns therefore of environmental pedagogies is environmental and human well-being within the ambit of sustainable development. These pedagogies unpack the inextricable link between human beings and the environment that houses their existence. This suggests the inseparability of the social from the environmental aspect of human existence. The actions carried out by human beings relative to the environment boomerang to them in the form of natural disasters which have social implications.

According to Armstrong (2018), climate change education outcomes enables educators to strategically plan and evaluate program activities. Moreover, climate change literacy makes students aware how humans affect climate and how climate affects humans and therefore take action and mitigate climate change. This is supported by Schelly (2018) who said that environmental education is transformative inasmuch as it explains and encourages patterns of behavior that are environmentally responsible and thus promote environmental sustainability.

Ecopedagogical teaching practices are crucial in a society's response to mitigate the catastrophic effects of climate change as it is both critical and transformative. It is critical inasmuch as it tends to question, reflect on and evaluate existing practices in relation to socio-environmental connections. This is a reaction against current educational ideas and practices that reinforce exploitative ways of thinking and doing thereby making education as accomplice in human exploitation of the environment (Ruyu, 2017).

Ecopedagogy is transformative, too, since it aims at changing the world into a better place to live in, not only in the here and now but more importantly, in the future generations to come. The significant role of educational institutions, specifically the educators is of great significance in the realization of the goals of ecopedagogy.

Ecopedagogy is an environmental pedagogy that aims for an environmental education – a teaching that would lead to action from learners, a teaching that encourages learners to engage in environmentally good actions (Misiaszek, 2016). This refers to the essence of ecopedagogy as an education that strives for praxis through the creation of ecopedagogical learning spaces. This is every educator's responsibility. But every educator is also an environmental educator. Thus, every educator must be ecopedagogically competent in order to form socio-environmentally responsible citizens. Indeed, enhancing our ability to learn, to live sustainably, and to love is the only way we will be able to address the ecological and social imperatives we face as we seek to build a fairer, less troubled and sustainable world for our children (Fien, 2003).

This study aims primarily to assess the ecopedagogical competence of Marian educators. The assessment results shall serve as a basis for more intensified drive for ecoliteracy, a more focused promotion of ecophilia and a firmer foundation for a greener campus campaign. Ecoliteracy, a short hand for ecological literacy points to the ability to understand the basic principles of ecology with the aim of sustaining the web of life (Stone, 2017). There is a need for a practice of ecoliteracy learning which includes the management of the learning environment, the use of learning methods and strategies, and the overall learning outcomes that are sustainable community oriented (Guansyah, et.al., 2020).

Ecophilia, literally understood as 'love of nature' refers to the affective and embodied bond between humans and nature (Ruyu, 2017). This speaks of the close relationship between humans and the environment. Human beings are conceived as microcosms as they are reflections of nature. And as reflections of nature, and in fact a part of nature, humans must not only love humans but the place where humans are. This relationship can be nurtured through education. Ruyu (2017) posited that ecophilia is educationally inspirational because it enriches the meaningfulness of human life. Thus, ecophilia can be considered as a guiding idea of education and such education is ecopedagogical.

A green campus is tied with sustainability. It refers to a place where environment-friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. In the study of Stafford (2011), stakeholders such as faculty, alumni and the surrounding

community play significant roles in the adoption of sustainable practices. The study recommends that policymakers can engage stakeholders such as faculty and alumni in help increase sustainable practices in the campus. Programs that subsidize campus sustainability efforts might be the most successful at encouraging campuses to adopt green programs. Thus, results of the current study will be a reinforcement of the CHSF program of the university.

Statement of the Problem

With the main aim of assessing the ecopedagogical competence of Marian educators and utilizing the assessment results for a more intensified drive for ecoliteracy, for the development of ecophilia and for a proposal for a green campus, the following serve as specific problems for inquiry:

1. What is the profile of the respondents in terms of
 - a. Sex;
 - b. Age;
 - c. Number of years in teaching, and
 - d. Department?
2. What is the level of ecopedagogical competence of Marian educators when grouped according to their demographic profiles?
3. Is there a significant difference in the level of competence of Marian educators when grouped according to their demographic profiles?
4. Is there a significant relationship between the level of competence of Marian educators and their demographic profiles?
5. What are the ecopedagogical practices of Marian educators?

Methodolgy

This paper employed the quantitative and qualitative methods using a survey questionnaire to assess the level of ecopedagogical competence of Marian educators. The role of Marian educators in the field of environmental education is crucial inasmuch as their influence to the behavior of students is great. The assessment of their competence in ecopedagogy serves a basis for the improvement of the universities programs and activities on environmental education. Qualitatively, the study looked into common themes in the responses of the research respondents which will serve as bases for the creation of the development of ecoliteracy, promotion of ecophilia among Marians and ultimately the grounding a campaign for a greener school.

The study was conducted at Saint Mary's University, a CICM catholic educational institution situated in the Municipality of Bayombong, Nueva Vizcaya. The respondents were the Marian Educators in all levels. The questionnaire was composed of three main parts. The first part determined the demographic profiles of the research respondents. The second part assessed the level of ecopedagogical competence of Marian educators through a four-point Likert-type questionnaire. The third part determined the ecopedagogical practices, teaching strategies and activities employed by Marian educators relative to environmental education.

Data gathering began with the approval of the University President through the endorsement of the University Research Center. The following were used to analyze the quantitative data of the study:

1. Frequency counts were used to describe the demographic profile of the respondents;

2. Means and standard deviations were used to analyze the level of eco-pedagogical competence of the teachers when grouped according to their demographic profile;
3. The one-sample t-test was used to describe the significance difference in the level of eco-pedagogical competence when grouped according to their demographic variables;
4. The Pearson correlation also used to describe the significant relationship in the level of eco-pedagogical competence when grouped according to their demographic variables

This research was submitted to the Saint Mary's University Research Ethics Borad (SMUREB) for review and approval. SMUREB has the following address and contact information:

Email: reb@smu.edu.ph

Mobile Number: 091771053041

Office Address: 2F Rev. John Van Bauwel Hall, SMU main Campus, Ponce St., Don Mariano Marcos, 3700 Bayombong, Nueva Vizcaya, Philippines

The study is mainly for educational purposes and does not go beyond it. Privacy of the respondents and confidentiality of data is important; hence, the researchers did not mention the names of the respondents in any part of the research. Data collected were used solely for the research study and will be disposed of after the completion of the study. Data stored in paper were secured and only the researchers shall have the access to it. The research respondents were not subjected to harm in any way to answer the research survey questionnaires. Their participation was voluntary and they had the right to withdraw from the study at any time. Before the conduct of the study, the informed consent was explained to the respondents and later on administered to them. Their participation in the study which contributes to the development of ecoliteracy, promotion of ecophilia and grounding of the campaign for a green campus involved no risks.

Results

Section 1. Respondents' Demographic Variables

Table 2. *Profile of the Respondents*

	Profile	Frequency	Percent
Sex	Male	56	38.4
	Female	90	61.6
Age	20-30 years old	22	15.1
	31-40 years old	57	39.0
	41-50 years old	47	32.2
	51-60 years old	20	13.7
	32 years and above	33	22.6
Year of Teaching at SMU	22-31 years	39	26.7
	12-21 years	45	30.8
	2-11 years	29	19.9
School	Elementary	14	9.6
	Junior High School	21	14.4
	Senior High School	17	11.6
	SAB	20	13.7

Profile	Frequency	Percent
SEAIT	28	19.2
SHANS	14	9.6
STEH	32	21.9
Total	146	100.0

Section 2. Level of Pedagogical Competence when grouped according to their profile variables

Table 3. Level of eco-pedagogical competence when grouped according to demographic variables

	One-Sample Statistics			
	N	Mean	Std. Deviation	Std. Error Mean
Sex	146	1.62	.488	.040
Age	146	3.45	.910	.075
School	146	4.35	2.002	.166
Years of Teaching at SMU	146	2.48	1.052	.087
Overall	146	3.7449	.60417	.05000

Legend: 1.00-1.49 = No Level of Competence; 1.50-2.49 = Low Level of Competence; 2.50-3.49 = Average Level of Competence; 3.50-4.49 = Moderately High Level of Competence; 4.50-5.00 = High Level of Competence

Section 3. Significant difference in the level of competence of Marian educators when grouped according to their demographic profiles

Table 4. Significant difference in the level of competence of Marian Educations when grouped according to demographic variables

	One-Sample Test					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Sex	40.030	145	.000	1.616	1.54	1.70
Age	45.748	145	.000	3.445	3.30	3.59
School	26.250	145	.000	4.349	4.02	4.68
Years of Teaching at SMU	28.481	145	.000	2.479	2.31	2.65
Overall	74.895	145	.000	3.74486	3.6460	3.8437

Section 4. Significant Relationship in t the level of competence of Marian Educations

Table 5. Significant Relationship in t the level of competence of Marian Educations when grouped according to demographic variables

		Correlations				
		Sex	Age	School	Years of Teaching at SMU	Overall
Sex	Pearson Correlation	1	.216**	.025	-.096	.034
	Sig. (2-tailed)		.009	.763	.249	.682
	N	146	146	146	146	146
Age	Pearson Correlation	.216**	1	-.059	-.412**	.246**
	Sig. (2-tailed)	.009		.476	.000	.003
	N	146	146	146	146	146
School	Pearson Correlation	.025	-.059	1	-.018	.061
	Sig. (2-tailed)	.763	.476		.831	.464
	N	146	146	146	146	146
Years of Teaching at SMU	Pearson Correlation	-.096	-.412**	-.018	1	-.055
	Sig. (2-tailed)	.249	.000	.831		.512
	N	146	146	146	146	146
Overall	Pearson Correlation	.034	.246**	.061	-.055	1
	Sig. (2-tailed)	.682	.003	.464	.512	
	N	146	146	146	146	146

** . Correlation is significant at the 0.01 level (2-tailed).

Section 5. The Ecopedagogical Practices of Marian Educators

Ecopedagogical Practices	Frequency
CHSF Minute	20
Tree planting	9
Backyard gardening	2
Integration of environmental issues in discussions	35
Discussion of green practices	2
Eco-walk	
Solid waste management	
Using eco-friendly products	
Conducting research on environmental concerns	

Discussions

Respondents' Demographic Variables

Table 2 shows the demographic variables of the Marian educator respondents. There are more females than males. Nearly three-quarters of the total population comprises the combined 31-40 and 41-50 years old respondents. Consequently, most respondents have been teaching at SMU for 12-21 years and 22-31 years, with 30.8% and 26.7%, respectively. With regard to school, there are 52 Marian educators from the Basic Education Department and 94 from the Tertiary Department. The total number of respondents is 146. At Saint Mary's University, most of the educators are males. This is supported by studies which looked into the relationship between gender and the teaching profession. In the study of Tasner, et. Al (2017), the teaching career is dominated by women. Wanchana (2020) likewise stated that were largely female comprising 73.28%. Based on the data provided by Dr. Jose Ramon G Albert (2013), in the cumulative distribution of teachers by age, age group 40-49 and 50-59 compose the greatest number of teachers.

Level of Pedagogical Competence when grouped according to their profile variables

Table 3 shows the level of pedagogical competence when grouped according to demographic variables. There is a moderately high level of eco-pedagogical competence ($M=3.7499$) among Marian educators. This indicates they have good experience integrating environmental education topics into their courses or subjects. The study of Chunteng (2004) yielded the same findings as it states that the teachers in the experimental schools generally have a correct attitude towards environmental education. Wanchana (2020) also found out that teachers show moderate competence in environmental education. On the one hand, grouping the respondents according to sex will, however, yield that they have a low level of eco-pedagogical competence ($m=1.63$). On the other hand, there is a moderately high level of eco-pedagogical competence ($m=4.35$) when grouped according to school; however, there is a varied description of the eco-pedagogical competence of the Marian educator with a standard deviation of 2.002, indicating a more dispersed response in relation to the mean. Hence, Table 3 suggests that when they are grouped according to sex and years of teaching at SMU, they have little experience; when grouped according to age, they have some experience; and when grouped according to school, they have good experiences in integrating environmental education topics or ideas in their courses or subjects. The educators demographic profile contributes to their capacity to integrate environmental education in the classroom thus affecting the level of eco-pedagogical competence. This is an affirmation of the findings of Francisco (2020) that maturity comes with experience. Gender-related performance and length of service affect the enrichment and promotion of competency. However, an earlier study conducted by Supardi, et.al. (2017) stated that there is no difference in the level of competence when teachers are grouped according to age. But there is a need to continuously capacitate educators in realizing the need to care for our environment. It is essential to empower teachers with in-depth knowledge of EE so as to be able to teach it in an integrated manner (Ramsaroop and Rooyen, 2013).

Significant difference in the level of competence of Marian educators when grouped according to their demographic profiles

Table 4 shows the significant difference in Marian educators' eco-pedagogical competence level when grouped according to demographic variables. Table 3 shows the mean level of the eco-pedagogical competence of Marian educators in terms of sex ($m=1.62$), age

($m=3.45$), school (4.35), and years of teaching in SMU ($m=2.48$). Table 4, however, shows a p-value of 0.000 which indicates significant differences in the level of eco-pedagogical competence when grouped according to their demographic variables. Hence, Marian educators differ in their experiences integrating environmental topics or ideas into their courses or subjects when grouped according to sex, age, school, and years of teaching in SMU. This could be due to the various courses or subjects being taught by the teachers. There are subjects like Mathematics or Physical Education that, though possible, it could be difficult or sometimes inappropriate to insert topics about the environment. Another probable reason is the lack of ecological foundation of some citizens including educators (Westover, 2001). Ecoliteracy and the cultivation of ecophilia is based upon sequential goals which start with an ecological foundation with respect to environmental issues. Westover (2001) further said that environmental education should be infused into existing school curriculum via an interdisciplinary approach. Moreover, educational initiatives related to environmental education lacked coordination and there are still many structural obstacles for a real integration in curricula and daily classroom work (Corpuz, San Andres and Lagasca, 2022).

Significant Relationship in the level of competence of Marian Educations when grouped according to demographic variables

Table 5 shows the Significant Relationship in Marian Educators' competence level when grouped according to demographic variables. Among the demographic variables, only age shows a significant relationship with eco-pedagogical competence with a p-value of 0.003, signifying a strong positive correlation between the two. The other demographic variables show no significant relationship with the level of eco-pedagogical competence with p-values greater than 0.05. Hence, the experience of integrating environmental lessons or ideas into the courses or subjects is significantly correlated to the age of the Marian educators but not with their sex, school, and years of teaching at SMU. This implies that as an educator ages, he/she is more inclined to integrating environmental concerns in the classroom. The need to strengthen ecoliteracy in the university. The study of Corpuz, San Andres and Lagasca (2022) concurs with this. Further, strengthening ecoliteracy among educators will ensure advocacy campaigns towards attainment of sustainable goals, initiate a genuine love of nature (ecophilia) and foster ecological network. These in turn shall encourage participation in activities that promote environmental consciousness like the CHSF Program and the Green Campus campaign. This is likewise anchored in the CICM Advocay specifically on Justice, Peace and Integrity of Creation.

Conclusion

Most of the respondents are female, ranging from 31-50 years old and mostly teaching in the university for 12 – 31 years already. When they are grouped according to sex and years of teaching at SMU, they have little experience; when grouped according to age, they have some experience; and when grouped according to school, they have good experiences in integrating environmental education topics or ideas in their courses or subjects. Marian educators differ in their experiences integrating environmental topics or ideas into their courses or subjects when grouped according to sex, age, school, and years of teaching in SMU. The experience of integrating environmental lessons or ideas into the courses or subjects is significantly correlated to the age of the Marian educators but not with their sex, school, and years of teaching at SMU. Most of the Marian educators practice the CHSF minute and integrate environmental issues in their class discussions. Generally, based on these findings, the ecopedagogical competence of

Marian educators is moderately high which implies that they have a good experience of ecopedagogy.

In the study, only the perspectives of the educators were considered. Future researches may look into the perspectives of the students.

Recommendations

Based on the findings of the study, the following are the recommendations: While Marian educators show a good experience in ecopedagogy, it is suggested that a more intensified campaign on awareness of environmental concerns be conducted. There is a need to capacitate the Marian educators on integrating environmental education in their classes through environmental fora. Also, a more intensified campaign of the university's green campus policy is suggested. This can be done during the launching of the CHSF Program and be sustained through activities that promote ecoliteracy and advocate ecophilia.

References

- Albert, J. (2013). Are we making it easier for teachers? Online blog.
- Ambe, B. A., & Agbor, C. E. (2014). Assessment of teacher's professional competence, teacher's teaching experience on the implementation of environmental education curriculum in Cross River State, Nigeria. *Journal of Educational and Social Research*, 4(6), 521.
- Armstrong, A. (2018). *Communicating climate change*. Cornell University Press. 24.
- Bannari, A., et.al. (2017). *Detection areas associated with flash floods and erosion caused by rainfall storm using topographic attributes, hydrologic index and GIS*. Springer International Publishing.
- Chunteng, L. (2004). Survey of primary and secondary school teachers' teaching competence for environmental education in Xicheng district of Beijing. *Chinese Education & Society*, 37(4), 39-44.
- Clover, D. (2000). Educating for a change: reconceptualizing formal and/or nonformal environmental education. *The University of Chicago Press Journals*. 44 (2), 213-219.
- Collins, Paul (2022). IPCC Climate report 2022 summary: The key findings. [Climate.selectra.com/en/news/ipcc-report-2022#](https://climate.selectra.com/en/news/ipcc-report-2022#)
- Corpuz, A., San Andres T., and Lagasca, J. Integration of environmental education in teacher education programs: Toward sustainable curriculum greening. *The Problems of Education in the 21st century* (80), 1.
- Daskolia, M., & Flogaitis, E. (2003). Theoretical formulation and empirical investigation of a conceptual model of teachers' Competence in Environmental Education. *Canadian Journal of Environmental Education*, 8(1), 249-267.
- Department of Education (2011). DepEd Order no. 52.

- Fien, J. (2003). Learning to care: education and compassion. *Australian Journal of Environmental Education*. 19, 1-13.
- Francisco, A. (2020). Teachers' personal and professional demographic characteristics as predictors of students' academic performance. *International Journal of Management, Technology and Social Sciences*. (5), 2.
- Gonzales, Catherine (2020). Looking back at super typhoon Yolanda's onslaught in 2013. *Inquirer.net*.
- Gunansyah, G., Et.al. (2020). Teacher's perceptions of ecoliteracy practice to sustainable communities in primary schools. *Advances in Social Science, Education and Humanities Research*. 429.
- Jaisankar, et.al. (2018). Bioshield: An answer to climate change impact and natural calamities? *Biodiversity and Climate Change Adaptation in Tropical Islands*. Elsevier.
- Maizland, L. (2021). Global climate agreements: Successes and failures. *Council on Foreign Relations*.
- Misiaszek, G. (2016). Ecopedagogy as an element of citizenship education: The dialectic of global/local spheres of citizenship and critical environmental pedagogies. *International Review of Education*. DOI 10.1007/s11159-016-9587-0
- Nahar, A. (n.d.). Green campus initiatives. Directorate of Technical Education (leaflet). Official Gazette of the Republic of the Philippines (2008). R.A. 9512.
- Pope Francis (2015). *Laudato Si*. Vatican City.
- Ramsaroop, S., & Van Rooyen, H. (2013). Exploring educator competence in teaching environmental education in schools in Gauteng. *Africa Education Review*, 10(3), 595-613.
- Ruyu, H. (2017). Towards ecopedagogy: An education embracing ecophilia. *Educational Studies in Japan: International Yearbook*, (11).
- Sarao, Z. (2022). Abra earthquake affected individuals now over 300k-NDRRMC. *Inquirer.net*.
- Schelly, C. (2018). Bringing the body into environmental behavior: The corporeal element of social practice and behavioral change. *Human Ecology Review*. 24 (1), 137-154.
- Stafford, S. (2011). How green is your campus? An analysis of the factors that drive universities to embrace sustainability. *Contemporary Economic Policy*. 9 (3). 337-356.

- Stone, Michael K. (2017). Ecoliteracy and schooling for sustainability. DOI 10.5822/978-1-61091-843-5_3.
- Supardi, et. al. (2017). Demographic perspective of teacher competence: A comparative study of the teachers at senior high schools in Tangerang, Banten, Indonesia. *International Journal of Social Sciences and Humanities Invention*. DOI: 10.18535/ijsshi/v4i12.08.
- Tarubal, L. (2021). The sad reality of environmental education in the Philippines. *Rappler*. [rappler.com/voices/ispeak/opinion/](https://www.rappler.com/voices/ispeak/opinion/)
- Tasner, V., Mihelic, M., and Ceplak, M. (2017). Gender in the teaching profession: University students' view of teaching as a career. *CEPS Journal*.
- UNHCR (2022). Safeguarding the rights of the vulnerable: Ensuring solutions for the internally displaced population due to super typhoon Rai in Caraga region and Southern Leyte province. *The Thematic Bulletin* (1).
- United Nations Treaty Collection (2015). *Paris agreement*.
- Wanchana, Y. (2020). Environmental education competency: Enhancing the work of teachers. *Journal of Teacher Education for Sustainability*. DOI: 10.2478/jtes-2020-0021.
- Westover, J. (2001). Integrating environmental education into the curriculum through environmental community service learning. *Theses Digitization Project*.
- World Bank (n.d.). Getting a grip on climate change in the Philippines. [Worldbank.org/en/country/Philippines/publication](https://www.worldbank.org/en/country/Philippines/publication).
- Yuan, K. S., Wu, T. J., Chen, H. B., & Li, Y. B. (2017). A study on the teachers' professional knowledge and competence in environmental education. *EURASIA Journal of Mathematics, Science and Technology Education*, 13(7), 3163-3175.
- Yi, Beh Lih (2022). Climate change action: 6 trends to watch in 2022. *Thomson Reuters Foundation News*.

A Stylistic Analysis of Leni Robredo's and Bongbong Marcos Jr.'s Proclamation Rally Kick-Off Speeches

**Roberto V. Guzman Jr. *, Lalaine D. Antigo, Judy Ann A. Babor, Jessa Leigh T. Bugarin,
Khyla Rose L. Ramos**

Angeles University Foundation, Angeles City, Philippines

*Email : guzman.robertojr@auf.edu.ph

Abstract

This qualitative-descriptive research examined the political speeches of the Philippine presidential candidates, Maria Leonor "Leni" Robredo and Ferdinand "Bongbong" Marcos Jr. Its aim was to identify the prevalent stylistic features in the selected speeches and analyze the inherent stylistic elements projected within them. The research incorporated the stylistic analysis framework proposed by Omozuwa and Ezejideaku (2009), encompassing two main categories: propaganda (including exaggeration, rhetorical questions, vague and abusive utterances, and attacks on party logo/slogan) and rhetoric (including repetition, references to God or biblical citations, promises, colloquialism, word coinage, pidginized expressions, metaphor, and idiom). The results are presented through a tabulation of the stylistic features found in each candidate's speeches, with selected statements further explained. The findings indicate that both Robredo and Marcos Jr. employed numerous stylistic features to persuade their audience. The study underscores the significance of being aware of politicians' speeches and their implications for language teaching. Finally, the research offers recommendations based on the study's findings.

Keywords : stylistic analysis, stylistic features, propaganda, rhetoric, political speech

1. INTRODUCTION

Language is a crucial tool for conveying messages and facilitating audience understanding. It not only communicates words and sentences but also creates vivid mental images (Dorcas, 2011). Political speeches, rooted in the works of Greek philosophers like Sophist, Socrates, Plato, and Aristotle, aim to address pressing issues and persuade people of the benefits of their leadership (Charteris-Black, 2005). Public speaking, a vital form of citizen involvement, has played a significant role in education and civic life throughout history (Lucas, 2007). Aristotle's Rhetoric, dating back to the third century B.C.E., remains influential and continues to shape contemporary speaking and writing (Anyanwu & Abana, 2020).

The concept of public speaking originated in ancient Greece, referring to the formal delivery of messages to large groups (Lin, 2019). Public speaking serves three main purposes: to inform, convince, and entertain, enabling individuals to express themselves and influence important issues in a democratic society. Language serves as a means of communication, with messages as its central focus. It is influenced by various factors, such as time, place, subject matter, linguistic attitude, cultural influences, and personal perspective (Anyanwu & Abana, 2020).

Analyzing the language of politicians provides insights into its impact on audiences and the strategies they employ to convey their intentions effectively. Politicians use language elements to inform, persuade, and entertain, employing various stylistic features that make their speeches persuasive without overtly appearing manipulative (Charteris-Black, 2011 as cited in Neshkovska, 2019). Stylistic analysis, which encompasses literary and non-literary works,

examines language style, techniques, and lexical-semantic processes in political speeches (Bashar, 2017). Researchers have investigated notable literary features, techniques, and the semantic process of different political speeches, such as opening ceremony speeches, campaign speeches, and battle novels (Omozuwa & Ezejideaku, 2009, 2010; Akinwotu, 2018; Ofoegbu & Alonge, 2017; Abuya, 2012).

Stylistics focuses on analyzing speeches to understand the connection between the speaker's style and its impact on the audience (Quinto, 2014). It examines linguistic structures, the text's topic, and the reader or listener's interaction with the text to derive meaning (Jaafar & Hassoon, 2018). Stylistics can be classified into literary stylistics and linguistic stylistics, with political speeches falling under the latter category. Political speeches utilize language features and devices to create an expressive style, enhancing the message's meaning and impact (Martin, 2020).

Stylistic features in political discourse can be categorized into propaganda and rhetoric. Propaganda includes exaggeration, rhetorical questions, vague utterances, abusive utterances, and attacks on party logos and slogans. Rhetoric encompasses repetition, biblical citations or references to God, promises, colloquialisms, word coinage, pidginized expressions, and figurative expressions like metaphors and idioms (Omozuwa & Ezejideaku, 2009).

While stylistic studies have been extensively conducted on literary texts, political speeches have received less attention in this regard. However, stylistic features play a significant role in political speeches, influencing the meaning, emotions, and persuasive impact on the audience (Staugaitė, 2014). Language elements, including vocabulary, sentence construction, and presentation style, contribute to the effectiveness of speech delivery (Kulo, 2019).

Although stylistic studies have been extensively conducted on literary texts, there is a gap in understanding the specific stylistic features employed in political speeches and their persuasive effects. This research sought to address this gap by analyzing the language and stylistic elements used in political speeches and their contribution to the effectiveness of speech delivery.

This research aimed to address the limited attention given to the specific language elements and stylistic features used in political speeches and their impact on the audience. Understanding these choices is crucial for comprehending the persuasive power of political speeches and the strategies employed by politicians to inform, persuade, and entertain their audience. By analyzing the stylistic features of propaganda and rhetoric, insights can be gained into how these elements contribute to the overall meaning, emotions, and impact of political speeches. Furthermore, studying the language and stylistic aspects of political speeches provides a deeper understanding of the historical tradition of public speaking and its influence on education and civic life. This research will contribute to the existing knowledge in stylistics, offering valuable insights for speechwriters, politicians, and scholars interested in political communication and rhetoric.

2. Objectives

In general, the objective of this research was to analyze the proclamation rally kick-off speeches of Leni Robredo and Bongbong Marcos Jr. stylistically. Specifically, this study aimed to:

1. identify the stylistic features (propaganda and rhetoric) prevalent in the selected political speeches of Leni Robredo and Bongbong Marcos Jr.;
2. present a comparison between Leni Robredo's and Bongbong Marcos Jr.'s use of stylistic features in their political speeches; and
3. determine the implications of stylistics in political speeches for language teaching.

3. Materials and methods

The researchers used the qualitative-descriptive method to analyze the stylistic features of Maria Leonor "Leni" Robredo's and Ferdinand "Bongbong" Marcos Jr.'s Proclamation Rally Kick-off speeches. The goal of qualitative descriptive studies is a comprehensive summarization, in everyday terms, of specific events experienced by individuals or groups of individuals (Lambert & Lambert, 2012). The primary objective of this research was to examine how Robredo and Marcos Jr., as selected Philippine presidential candidates, employed stylistic features in their public speeches.

Data were collected from credible documents and records, including video recordings and transcripts of Robredo's and Marcos Jr.'s speeches. The speeches analyzed were Robredo's speech on February 8, 2022, in Plaza Quezon, Naga City, and Marcos Jr.'s speech on the same date at the Philippine Arena in Bulacan.

The subjects of the research were Leni Robredo and Bongbong Marcos Jr., who participated as Philippine presidential candidates in the 2022 Elections. The selection was based on campaign surveys and subsequent election results, with Robredo ranking second and Marcos Jr. ranking first.

For data analysis, the researchers applied stylistic features identified in previous studies on political speeches, specifically the work of Omozuwa and Ezejideaku in 2007. Sentences from each speech were categorized based on stylistic features, such as propaganda and rhetoric, using a table. Tabulation determined the frequency of propaganda and rhetoric in each speech. Extracted statements from the speeches were translated and explained within their respective stylistic categories, following Yulia Astuti's data analysis approach in a 2017 study.

To ensure credibility and accuracy, three validators participated in the study. Validators received a tool with segmented and categorized sentences from the speeches and indicated agreement or disagreement with the categorization. Adjustments were made based on the validators' feedback to ensure reliable results. The validators held Bachelor's degrees in Secondary Education, with majors in English, and Master's degrees in Education, with two specializing in English and one in Communication Arts – English. Two validators also held Doctorate degrees, with specializations in Educational Leadership and Language Teaching.

4. Results and Discussion

The objective of this study was to identify the stylistic features employed in the political speeches of Leni Robredo and Bongbong Marcos Jr. These features aligned with the findings of Omozuwa and Ezejideaku's (2007) study, which identified two key stylistic features used by politicians: propaganda and rhetoric. Propaganda and rhetoric were further categorized into specific types, including propaganda through exaggeration, propaganda through rhetorical questions, vague utterances, abusive utterances, and attacks on party logos and slogans. Rhetoric

was classified into categories such as repetition, biblical citations or references to God, promises, colloquialisms, word coinage, pidginized expressions, and figurative expressions.

The analysis focused on two specific political speeches delivered by Leni Robredo and Bongbong Marcos Jr. during their respective proclamation rallies. These speeches were chosen as the study's primary source of data, as they were critical to the candidates' campaigns. The proclamation rallies provided a platform for the candidates to express their intentions to run for the presidency with enthusiasm and to outline their respective platforms. Both proclamation rallies took place on February 8, 2022, with Robredo's rally lasting 17 minutes and 2 seconds at Plaza Quezon, Naga City, and Marcos Jr.'s rally lasting 15 minutes and 55 seconds at the Philippine Arena.

The speeches by Robredo and Marcos Jr. exhibited various stylistic features identified by Omozuwa and Ezejideaku (2007). However, certain stylistic features were not utilized by either politician. To provide a comprehensive overview of the employed and unused stylistic features, detailed breakdowns are presented in the following tables. The acronyms provided in the two tables can be defined as follows: E stands for Propaganda through exaggeration, RQ represents Propaganda through rhetorical questions, VU signifies Vague Utterances, AU denotes Abusive Utterances, APS represents Attack on party logo and slogan, REP stands for Repetition, BC/BG refers to Biblical citation/reference to God, PRM stands for Promises, COL represents Colloquialism, WC signifies Word Coinage, PE represents Pidginized Expression, MET stands for Metaphor, and ID represents Idioms.

Table 1 Stylistic Features used by Leni Robredo

Robredo's Speech	E	RQ	VU	AU	APS	REP	BC/RG	PRM	COL	WC	PE	MET	ID
Frequency of occurrence of Stylistic Feature	3	3	5	1	0	4	0	6	1	0	0	1	0
Total	24												

Table 1 shows the stylistic features utilized in the proclamation speech of Leni Robredo. It shows that out of 13 categories of stylistic features, Robredo maximized 8 of them which include propaganda through exaggeration, propaganda through rhetorical questions, vague utterances, abusive utterances, repetition, promises, colloquialism, and metaphor. This means that attack on party logo and slogan, biblical citation to God/reference to God, word coinage, pidginized expression, and idioms were stylistic features that are not found in Robredo's speech during her proclamation rally. In addition, the table indicates that promise was the most used stylistic feature by Robredo with 6, while metaphor, colloquialism, and abusive utterances were the least with only 1 utterance each.

Excerpts of Leni Robredo's utterances that fall under the categories of stylistic features are listed below:

- a. Propaganda through exaggeration

“I have trust with the strength, with the excellence of each of us, to the light that is inside us, with the hope and truth that will bind our nation, the truth that will enhance the life of everyone, the truth that will transcend to each heart, to all corners of the country.”

The statement shows exaggeration because it is assuming that every Filipino will comprehend the statement. In addition, it also conveys a statement that is too good to be true. It is obvious that the words were constructed in order to give a propaganda that will convince the audiences and that will surely get their favor. Furthermore, no one is certain about the truth that Robredo is trying to convey and the outcome is yet to come.

b. Propaganda through rhetorical question

“We already forged the plan, the principle has been practiced for so long, and the life progress brought by this has been proven, we’re ready to face anyone, but how can a platform, a track record, a vision towards the future be measured if today, we already see the attempt to divert the discourse away from the topic about our dreams?”

The statement clearly is a question which the answer is already assumed by Robredo. Moreover, it is also telling the audience that the answer to her question is through voting her in order to ensure that the dreams that they forged will not go to waste, as indicated in her statement *“From the time that I am still a lawyer, for the poor until in congress, until now that I am the Vice President, I saw the effect of service rooted from truth and centered on the unfortunate.”* is stating the answer to the audience that her administration transparency will occupy the government and will solve the problems of the country.

c. Vague Utterances

“We already forged the plan, the principle has been practiced for so long, and the life progress brought by this has been proven, we’re ready to face anyone, but how can a platform, a track record, a vision towards the future be measured if today, we already see the attempt to divert the discourse away from the topic about our dreams?”

The statement is considered to be a vague utterance because it is claiming an uncertain accusation. In addition, it also shows unclear dreams which are said to be slowly taken from them because it is not clearly stated.

d. Abusive Utterances

“We know the face of the old and rubbish politics that we want to end.”

In this statement, Robredo is attacking a group of people specifically coming from the party of her contenders in the election. This statement was uttered in order to discredit or destroy the character of her opponents. The words found in this utterance state that her administration is a new face and some of the past governments were not. It is a strategy to strengthen the belief of the audience that she will provide a government better than what was in history.

e. Repetition

“In an honest government, everyone’s life will rise. That means that if the government is committed to duty, committed to principle, and honest to the people, the fear of the sick of where to get money to pay the hospital bills will be gone, because the care, the medicine, and the cure for the disease will be made affordable by the health system.”

At this point, Leni Robredo repeatedly said the words *“tapat sa panunungkulan or committed to leadership”* to emphasize what kind of a leader she will be if elected president. It functioned to convince the people to believe in her leadership as her governance will be honest and true to their services.

f. Promises

“This position is our fundamental principle of governance, we will establish a government that is willing to listen to your concerns and use your experiences as the basis of our actions; a government that will take care of the country’s funds and uses it just for your good.”

During her proclamation rally kick-off speech, Leni Robredo made promises to the Filipinos. The example is shown in this statement. She tried to persuade the audience to vote for her as she assured them that their voices will be heard in the governance she was planning to establish. Utilizing rhetorical language was evident in her promises with the selective and purposive choices of words she used to encourage as many people as she can to vote for her during the elections.

g. Colloquialism

“This is the kind of politics that will take a selfie with you, will sing and dance for you, and occasionally hand you an envelope during the campaign.”

The statement above has a so-called “colloquial word” or an informal word used when talking to someone we know well. This kind of word is used intentionally to show solidarity with the masses or the audiences. In her speech, Leni Robredo utilized this colloquial word that was already familiar to her audience to establish a bond with them.

h. Metaphor

“This is the spirit of our fight, the key to fulfilling this cause and the leader should not be debated, especially the president.”]

In the extract presented above, Leni Robredo expressed metaphor by using the word “susi” or “key” to directly represent the solution for the purpose of her governance. In her statement, she believes that honesty is what makes a great government, thus, a way to achieve her supposed plans for the country.

Leni Robredo's proclamation speech employed a range of stylistic features to captivate the audience and convey her vision effectively. Through the use of propaganda techniques like exaggeration and rhetorical questions, she aimed to evoke strong emotions and engage the listeners actively. Vague utterances were employed strategically to leave room for interpretation and create a sense of intrigue. The repetition of key phrases and the inclusion of promises emphasized her commitment and resonated with the audience's aspirations. Additionally, the use of colloquialism and metaphor added familiarity and depth to her message, strengthening the connection between Robredo and the listeners.

Table 2 Stylistic Features used by Bongbong Marcos Jr.

Marcos Jr.'s Speech	E	RQ	VU	AU	APS	REP	BC/RG	PRM	COL	WC	PE	MET	ID
Frequency of occurrence of Stylistic Feature	3	0	4	0	0	6	0	1	1	1	0	2	0
Total	24												

The table shows that Bongbong Marcos used 7 out of 13 stylistic features in his speech. Therefore, 6 features were not utilized and these are the propaganda through rhetorical questions, abusive utterances, attack on party logo and slogan, biblical citation or reference to God, pidginized expressions, and idiom. The table also represents the stylistic feature that Bongbong Marcos Jr. frequently used which was repetition, totaling 6 utterances, and the least ones were promises, colloquialism, and word coinage, having only 1 utterance in each category.

The examples or excerpts of Bongbong Marcos' utterances that fall under the categories of stylistic features are listed below:

a. Propaganda through Exaggeration

“Since Inday Sara and I announced our plans to run for Presidency and Vice Presidency, we are traveling around the Philippines, screaming and announcing to our fellow countrymen the message of unity – the message of unity that was warmly welcomed by our fellow countrymen.”

The statement obviously expresses an exaggeration because its intention is unattainable. It is impossible to literally go to every place around the Philippines in just a couple of months. It may sound convincing to the people that Marcos' team is visiting every town, but the statement was just too exaggerated which made it impossible to believe.

b. Vague Utterances

“But before anything else, I want to tell you that I am the luckiest Presidential candidate in this election, because the one I am partnered with, my Vice President is best, most excellent, and above all, has a strong stance on the love for the Philippines, Mayor Inday Sara Duterte.”

The descriptions of Marcos to his Vice President are instances of vague utterances. The choice of words is merely an expression of personal opinion. There is no definite proof that she is the best and that she loves the country. However, although these are considered vague utterances, Marcos used them to convince the people that they are supporting a leader with a good character.

c. Repetition

“And the scream of our countrymen, “We are together in unity, we are together in the improvement, we are together in the enhancing of the lives of every Filipino, we are together in the enhancement of the Philippines.”

In this statement, Marcos used rhetorical repetition by stating, “we are together”. This expression appeared four times in this text, indicating its frequency of use. This indicates that Bongbong

Marcos emphasized firmly that he is committed to unification, prosperity, improved living conditions for Filipinos, and the enhancement of the Philippines.

d. Promises

“When I first announced that I’ll run as the President of the Republic of the Philippines, I said that I’ll run because of my goal, my dream for our country is to reunite the Filipino people.”

During Marcos Jr.’s speech, he used rhetoric promise to convince the electorate’ to vote for him in a way tackling the unification of the Filipino people. Here, the use of rhetorical language is evident, as Marcos purposefully chose words or sentences to persuade as many people as possible to vote for him.

e. Colloquialism

“That is why the advocacy that I have started, we now have what we call “Movement of Unity”, the movement where we unite all the Filipinos, combining all the knowledge and skill of all Filipinos for the Filipinos.”

In the excerpt, it consists of what is known as a “colloquial word”, that is, a casual term used while speaking with someone we know well. Its use as a type of word highlights an intention for solidarity with the audience or the masses. The words “Movement of Unity” are an approach used while talking to a crowd of people informally, and it represents a close connection for both the speaker and his audience. It is assumed that Marcos uses the term above to give the impression that he is close to the audience and that they have a strong bond.

f. Word Coinage

“Thank you very much for your warm welcome to the whole UNITEAM.”

To leave a unique name to the people’s minds, Marcos’ team created a word to emphasize their platform, which is to bring back the unity of the Filipino people. They coined the word “UNITEAM” which is a combined word for “unity” and team”, referring to a team with unity. This coinage functioned as Marcos’ team’s trademark throughout the campaign period.

g. Metaphor

“This started just like a whisper that almost can’t be heard, but as time passed by, the voice of the Filipino people became louder and louder, until this became a scream of unity.”

The statement above is metaphorical. The meaning that Bongbong Marcos Jr. wanted to impart here was that people who believe in him and his capability to govern the country were not heard before but are now becoming bigger and their voices are now recognized by others.

The analysis of Bongbong Marcos' speech reveals his strategic use of stylistic features to engage the audience and convey his message effectively. While some categories of stylistic features were not utilized, such as propaganda through rhetorical questions and abusive utterances, Marcos relied heavily on repetition to emphasize his key points. The examples provided demonstrate his use of propaganda through exaggeration, vague utterances, promises, colloquialism, word coinage, and metaphor. These stylistic choices aimed to create a compelling narrative, appeal to emotions, and position Marcos as a unifying leader.

Comparison between Leni Robredo’s and Bongbong Marcos Jr.’s use of stylistic features in their political speeches

Both Leni Robredo and Bongbong Marcos Jr. strategically employed various stylistic features in their political speeches to engage the audience and convey their messages effectively. However, there are distinct differences in the specific features they utilized and the overall objectives of their speeches. In terms of stylistic features, Robredo maximized categories such as propaganda through exaggeration, rhetorical questions, repetition, promises, and colloquialism. These choices were aimed at creating a favorable impression, persuading the audience, and rallying support. She consciously avoided certain features like attacks on party logos and biblical references. On the other hand, Marcos utilized different stylistic features, including propaganda through exaggeration, vague utterances, promises, colloquialism, word coinage, and metaphor. Notably, he heavily relied on repetition to emphasize his key points. His stylistic choices were intended to create a compelling narrative, appeal to emotions, and position himself as a unifying leader. With regard to utilization of categories, Robredo utilized 8 out of 13 categories of stylistic features, emphasizing those that align with persuasive techniques such as propaganda through exaggeration, rhetorical questions, repetition, and promises. This suggests a strategic selection of features to connect with the audience and convey her vision effectively, whereas Marcos used 7 out of 13 stylistic feature categories, with a particular focus on repetition, propaganda through exaggeration, and vague utterances. While he did not utilize certain categories such as propaganda through rhetorical questions and abusive utterances, his emphasis on repetition indicates a deliberate choice to reinforce key messages and make them memorable. As regards objectives and messaging, Robredo's use of stylistic features aimed to create a sense of enthusiasm, unity, and trust among her supporters. Her speech emphasized her commitment to honest governance, the well-being of the people, and a government that listens to their concerns. The selected features were employed to persuade the audience to vote for her and believe in her leadership. Marcos, however, utilized stylistic features to project an image of unity, prosperity, and a commitment to improving the lives of Filipinos. His speech focused on the unification of the Filipino people and the enhancement of the country. By emphasizing repetition and employing persuasive techniques, Marcos sought to convince the electorate to support his candidacy and position himself as a unifying force. In summary, while both Leni Robredo and Bongbong Marcos Jr. strategically used stylistic features in their political speeches, they employed different sets of features to convey their messages. Robredo's focus was on creating enthusiasm, trust, and emphasizing her commitment to the people, while Marcos aimed to project unity, prosperity, and position himself as a unifying leader.

Implications for Language Teaching

The research results on the strategic use of stylistic features in the political speeches of Leni Robredo and Bongbong Marcos Jr. have significant implications for language teaching. Firstly, language teachers should introduce students to various stylistic features used in public speaking, such as propaganda through exaggeration, rhetorical questions, repetition, promises, colloquialism, and metaphor, to enhance their awareness of persuasive techniques and their impact on the audience. Secondly, language teachers can incorporate activities and exercises that focus on developing genre-specific language skills required for political speeches, enabling students to employ stylistic features effectively and engage their audience. Thirdly, students should be encouraged to critically analyze and interpret speeches, identifying the stylistic features used, understanding their intended effects, and evaluating their effectiveness in conveying messages and persuading the audience. Additionally, language teachers can guide students in tailoring their language to specific objectives, considering the purpose of communication and its desired impact on the audience when selecting and using stylistic features.

Lastly, by exploring the communication strategies employed by Robredo and Marcos, language teachers can help students cultivate their own effective communication strategies, enabling them to engage and persuade audiences in various contexts beyond political speeches. By integrating these implications into language teaching, students can develop their language proficiency, critical thinking skills, and effective communication strategies, enhancing their ability to engage and persuade audiences effectively.

5. Conclusion

Based on these research results, several conclusions can be drawn regarding the strategic use of stylistic features in the political speeches of Leni Robredo and Bongbong Marcos Jr. Firstly, both Robredo and Marcos recognized the importance of employing stylistic features to engage the audience and effectively convey their messages. This highlights the significance of language and rhetoric in political communication. Secondly, the specific features utilized by Robredo and Marcos differed significantly, indicating their distinct approaches and objectives. Robredo's focus on propaganda through exaggeration, rhetorical questions, repetition, promises, and colloquialism aimed to create a favorable impression, persuade the audience, and rally support, while Marcos relied on propaganda through exaggeration, vague utterances, promises, colloquialism, word coinage, metaphor, and repetition to create a compelling narrative, appeal to emotions, and position himself as a unifying leader. These differences in stylistic choices reflect their unique strategies and messaging techniques. In addition, the utilization of stylistic feature categories further demonstrates the deliberate selection of features by both candidates. Robredo's emphasis on persuasive techniques aligning with categories such as propaganda through exaggeration, rhetorical questions, repetition, and promises highlights her strategic approach to connect with the audience and effectively convey her vision. Similarly, Marcos's focus on repetition, propaganda through exaggeration, and vague utterances indicates his deliberate choice to reinforce key messages and make them memorable. Lastly, the objectives and messaging of Robredo and Marcos differed significantly. Robredo aimed to create enthusiasm, unity, and trust among her supporters, emphasizing her commitment to honest governance, the well-being of the people, and a responsive government. In contrast, Marcos sought to project an image of unity, prosperity, and commitment to improving the lives of Filipinos, with a focus on the unification of the Filipino people and the enhancement of the country. These differences in objectives and messaging reflect their distinct political agenda and aspirations. Overall, these research results highlight the importance of strategic language use, the impact of stylistic choices, and the alignment of language with specific objectives in political speeches.

The present study has certain limitations that should be recognized. Firstly, it solely focused on the Proclamation Rally Kick-off speeches of Leni Robredo and Bongbong Marcos Jr. Consequently, these speeches may not fully represent the entirety of their political communication styles. Secondly, the findings of this study are specific to the context of the proclamation rally kick-off speeches and may not be applicable to other types of speeches or campaign events. Thirdly, including speeches from different stages of the campaign or different settings could yield different results. Unfortunately, the study did not account for external factors that could have influenced the politicians' stylistic choices, such as audience response, media coverage, and campaign strategies.

Based on the findings and conclusions, several recommendations have been proposed. Firstly, Filipino voters can utilize the study's findings to assess the suitability of their preferred

politicians for serving the country and evaluate the viability of their platforms. Secondly, future researchers and political analysts engaged in ongoing text analysis on political speeches should consider exploring other aspects, thus forming a new paradigm as a foundation for analyzing political speeches. Moreover, future researchers can use this study as a basis to delve deeper into understanding the impacts of political speeches on their audiences. Additionally, researchers interested in expanding this study can include more political speeches of the research subject to establish consistent variables and data. Furthermore, conducting further research with different samples of research subjects and political speeches is also recommended. It is also suggested to conduct a more comprehensive analysis by incorporating speeches from various campaign stages, events, and settings to capture a broader range of stylistic features employed by the politicians. Lastly, it is important to consider the influence of external factors such as audience demographics, media coverage, and campaign strategies on the utilization of specific stylistic features, as this would contribute to a more holistic understanding of the contextual factors that affect political speech patterns.

6. References

- Abuya, E. (2012). A pragma-stylistic analysis of President Goodluck Ebele Jonathan inaugural speech. *English Language Teaching*. 5. 10.5539/elt.v5n11p8.
- Akinwotu, S. A. (2018). *Language and style in political inaugurals: A study of inaugural speeches of Governor Olusegun Mimiko of Ondo State, Nigeria*. <https://bit.ly/3qW2a79>
- Anyanwu, E. C. & Abana, I. (2020). *A speech act analysis of public speeches of three African presidents amid Covid-19*. <https://bit.ly/3NAajb0>
- Astuti, A. (2017). *A stylistic analysis on political speech of the American president candidates: A study on Donald Trump's and Hillary Clinton's speeches*. <http://eprints.unram.ac.id/11760/1/ARTIKEL.pdf>
- Bashar, A. (2017). *Role and importance of language in the curriculum*. SlideShare a Scribd company. <https://www.slideshare.net/abubashars/role-and-importance-of-language-in-the-curriculum>
- Charteris-Black, J. (2005). *Politicians and rhetoric: The persuasive power of metaphor*. Houndmills, Basingstoke, Hampshire, New York: Palgrave Macmillan.
- Charteris-Black, J. (2011). *Politicians and rhetoric: The persuasive power of metaphor*. Second Edition. University of the West of England, UK, Palgrave Macmillan.
- Dorcas, B. (2011). A stylistic analysis of a selected campaign speech of President Goodluck Jonathan. <https://bit.ly/375HAKr>
- Jaafar, E. A., & Hassoon, F. K. (2018). Pedagogical stylistics as a tool in the classroom: An investigation of EFL undergraduate students' ability in analyzing poetic language. *Arab World English Journal*, 9(1).
- Kulo, L. (2009). *Linguistic features in political speeches*. <http://www.diva-portal.org/smash/get/diva2:1028973/FULLTEXT01.pdf>

- Lambert, V.A., & Lambert, C.E. (2012) Qualitative descriptive research: An acceptable design. *Pacific Rim International Journal of Nursing Research*, 16(4), <https://he02.tci-thaijo.org/index.php/PRIJNR/article/view/5805>
- Lin, H. (2019). A stylistic analysis of Donald Trump's inaugural address. *Studies in Literature and Language*, 19(3), 75.
- Lucas, S. E. (2007). *The art of public speaking*. New York: McGraw-Hill Companies.
- Martin, J. (2020). Rhetoric, discourse and the hermeneutics of public speech. *SAGE Journals*. <https://journals.sagepub.com/doi/full/10.1177/0263395720933779>
- Neshkovska, S. (2019). *Language in political speeches*. https://www.researchgate.net/publication/336103928_Language_in_Political_Speeches
- Ofoegbu, F. O., & Alonge, H. O. (2017). Effective university leadership as predictor of academic excellence in Southern Nigerian Universities. *Journal of Education and Practice*, 8(8), 111- 116, <https://eric.ed.gov/?id=EJ1138938>
- Omozuwa, V. E., & Ezejideaku. (2010). A stylistic analysis of language of political campaigns in Nigeria. Evidence from the 2007 general elections. *African Journals Online*. 10.4314/og.v5i1.52327
- Quinto, E. (2014). *Stylistic analysis of deictic expressions in President Benigno Aquino III's October 30th Speech*. 10.17576/3L-2014-2002-01.
- Staugaitė, I. (2014). *Linguistic realization of rhetorical strategies in Barack Obama and Dalia Grybauskaitė's political speeches*. Master's diss. Lithuanian University of Educational Sciences, Vilnius, http://vddb.library.lt/fedora/get/LT-eLABa-0001:E.02-2014-D_20140723_144546-29919/DS.005.1.01.ETD.

7. Author's Biodata

Dr. Roberto V. Guzman Jr. is an Associate Professor at AUF's College of Education. He holds a BSE in English from AUF, a master's degree in teaching reading from the Philippine Normal University, and a PhD in Curriculum and Instruction major in English Language Teaching from AUF.

Information Technology Teachers and Students' Acceptability of Open Education Resources for the Adoption of a Flipped Classroom

Gertrude G. Danao^{*}, Rogie B. Taborda, Rocel Audrey J. Batara, Mabel D. Mamaoag

Saint Mary's University, School of Engineering Architecture and Information Technology,² Saint Mary's University,
School of Teacher Education and Humanities

^{*}Email : gdanao@smu.edu.ph

Abstract

This research aimed to determine the acceptability of IT teachers and students in a Higher Education Institution on the use of Open Education Resources (OERs) for teaching and learning. It made use of Roger's Diffusion of Innovation theory attributes namely: relative advantage, compatibility, complexity, triability, and observability to determine its acceptability towards adoption. The researchers used a different questionnaire for the faculty and another for the students. The two questionnaires used a Likert scale with "4" as a number that represents strongly agree and "1" for strongly disagree. Responses from the questionnaire were analyzed using mean, standard deviation, and one-way ANOVA to determine significant differences when grouped according to years of teaching for the teachers and year level for the students. The results revealed that there is no significant difference in the responses of the faculty when grouped according to years of teaching. The results also showed that there is no significant difference in the students' responses when grouped according to year level. These results will be used as bases for the development of the OER-based flipped classroom syllabus which will serve as the model for the IT and Computer Engineering faculty OER training which is the first step towards adoption and utilization.

Keywords : Open education, innovative teaching approach, free educational resources, teaching and learning, acceptability

1. INTRODUCTION

The adoption of OER provides an opportunity to use and share quality free educational resources, but there are challenges, such as awareness and engagement that needs to be addressed. However, despite various efforts to promote the use of OERs in educational institutions, it is not adopted which impacts sustainability and realization of its purpose (USAID, 2020). In the study of Villanueva and Dolom (2018), the adoption of OER relies on attitude and perceived usefulness. These are measures of acceptability which means that the more users perceive OER's usefulness the bigger chance of acceptability. This is the reason, the researchers conducted a study to determine the acceptability of OER using Roger's Diffusion of Innovation (DOI) theory to introduce OER in the School of Engineering Architecture and Information Technology's (SEAIT) Information Technology (IT) department which at present is a Center of Development mandated to introduce and pioneer innovations using technology.

Roger's Diffusion of Innovation uses five attributes namely: relative advantage, compatibility, complexity, triability, and observability to determine the adoption of an innovation like OER (Menzli, et al., 2022; Buć and Divjak (2015), Jwaifel and Gasaymeh, (2013). Relative advantage refers to the acceptability of the users in terms of the benefits that they can get from the innovation. The more they believe that the innovation is beneficial for them, the higher the rate of adoption. Compatibility on the other hand is the perception that the innovation can address the values and needs of the users. Complexity refers to the ease of use of the innovation.

Triability is the degree to which the innovation can be experimented on and observability refers to the degree to which the results can be observed by the users.

OERs can contribute to the improvement of flipped-classroom because it is used to augment the learning of students by providing them with resources from OERs to boost students' learning and improve comprehension and reading, collaborative work, and critical-thinking and creativity (Mosquera, et al., 2021; Li, et al., 2015). The same is true with the teachers where OERs provide free ready-to-use educational resources (Badai, et al., 2017).

With the benefits of using OER in mind, the researchers conducted a study on the acceptability of IT and Computer Engineering teachers and IT students on OERs in the School of Engineering, Architecture, and Information Technology, Information Technology Department. The findings of the study were used as a guide or basis for a project that will realize the adoption of OER. That is, an OER-based flipped classroom syllabus was developed and training for teachers and IT students was conducted.

2. Objectives

The team aims to determine the OER acceptability of teachers and students in an educational institution by using Roger's Diffusion of Innovation (DOI) Theory. The five (5) DOI attributes namely, relative advantage, compatibility, complexity, triability, and observability will be utilized to determine the OER adoption of teachers.

This study specifically aims the following:

1. determine OER acceptability of IT teachers and students in terms of
 - a. relative advantage
 - b. compatibility
 - c. complexity
 - d. triability
 - e. observability
2. determine the DOI attribute(s) that affects IT teachers' and students' OER adoption most.
3. determine if there is a significant difference in the OER acceptability of IT teachers when grouped according to years of teaching experience,
4. determine if there is a significant difference in the OER acceptability of IT students when grouped according to year level,
5. design an IT teachers' training on OER, and
6. design an OER-based flipped classroom syllabus for an Information Technology course.

3. Materials and methods

This study is applied research whereby researchers determined the acceptability of OER of Information Technology (IT) teachers and students using Roger's Diffusion of Innovation Theory. The results of the acceptability survey were used to design and develop an IT course OER-Based flipped classroom syllabus, IT Teachers' OER Training, and orientation for IT students if found that it is needed. A questionnaire with the DOI five (5) attributes namely, relative advantage, compatibility, complexity, triability, and observability was used to determine the acceptability of IT teachers and students. The researchers adopted the OER DOI 5-point Likert scale questionnaire used by Menzli et al. (2022) for teachers. For the students, the

researchers adopted the DOI questionnaire of Afolabi (2017). The computed reliability coefficient for both questionnaires is 0.85. The mean and standard deviation were used to describe the data gathered from the OER DOI questionnaire. One-way ANOVA was used to determine the difference in the OER acceptability of IT teachers when grouped according to years of teaching experience. The results of the survey were used to design and develop the IT teachers' OER training. ANOVA test was also used to determine the difference in the OER acceptability of students when grouped according to year level. The results of the study will serve as a basis for designing the IT course OER-based flipped classroom syllabus, IT and Engineering teachers OER training, and OER orientation of students.

The study was conducted at Saint Mary's University (SMU), School of Engineering, Architecture and Information Technology (SEAIT), IT department of Bayombong, Nueva Vizcaya. The IT Department was awarded the Center of Development (COD) in IT Education in 2007. As a COD, the IT Department's mandate is to continuously develop and improve HEIs by enhancing their teaching, research, and service programs. The use of OER for teaching and learning is one opportunity that would be a tool to realize its mandate.

The respondents of this study are supposedly all or four (4) IT teachers except for the proponents of this study and one hundred forty-nine (149) IT students of the SEAIT, IT department of the current semester of S.Y. 2022-2023. However, three (3) IT teachers did not answer the questionnaire, hence the researchers invited two (2) Computer Engineering teachers who answered the questionnaire. The IT students come from different levels, that is, from 1st year to 4th year enrolled in the second semester of this school year.

The DOI questionnaire that was used to determine the teachers' OER acceptability was adopted from the study of Menzli, et al. (2022) and the DOI questionnaire that was used for the students was adopted from the study of Afolabi (2017). The DOI questionnaire from Menzli, et. al (2022) has 28 items with a five-point Likert Scale where "5" strongly agree to "1" strongly disagree. The relative value is composed of seven (7) questions, compatibility six (6), four (4) for complexity, six (6) for triability, and six (6) for observability. The researchers adopted the DOI questionnaire of Menzli et.al (2022) for the reason that they investigated the OER adoption of higher education institutions faculty which is similar to this study. Aside from this, Menzli, et.al (2022) wrote that OER adoption is not widespread which is again realized in the Philippines (USAID, 2020).

The DOI questionnaire in the study of Menzli et.al (2022) was adopted by the researchers for the reason that their research investigated the acceptability of a department in a higher education institution which is similar to the locale of their study. The questionnaire used in the study by Afolabi (2017) was also adopted in this study, particularly because the subject of her study are university undergraduates similar to the researchers' study. Aside from this, the responses of the students would also be used to determine the necessary intervention and support needed by students which will be considered in the adoption of the flipped classroom.

The respondents of the DOI questionnaire may choose to answer in print or through a Google form link that was distributed to both students and teachers. The questionnaire used for the students was adopted from the study of Afolabi (2017).

A letter was written to the OIC Dean of the School of Engineering, Architecture, and Information Technology to allow the researchers to distribute the printed questionnaire or provide the link to the DOI questionnaire to all IT teachers with teaching loads and students

enrolled in the current semester. The questionnaire was in print and an electronic or Google form link. The researchers visited classes of IT students and teachers in their classes and shared links to the OER questionnaire and consent forms. Although there are only a few cases of COVID-19 in the university, the proponents observed the minimum health protocol, that is, observing physical distancing and wearing face masks during the distribution of questionnaires, consent forms, and Google form links for those who opted to answer online. Before the distribution, the researchers informed respondents that answering the questionnaire is not required, but voluntary and that it will not affect their academic performance in any way. The respondents were also informed that if they decide to answer the questionnaire, all their answers will be treated with confidentiality and that only the researchers will be able to see their answers. Also, the researchers informed that all accomplished questionnaires were shredded and that online answers via Google form will be erased once the research is already through and presented in a fora. The researchers through their consent forms explained the importance of giving honest, truthful, and biased-free answers for the successful results of the research. The answers in Google form were extracted in Excel format. Since all respondents opted to answer online the downloaded answers from the Google form were deleted immediately after the presentation in a research forum. The extracted answers were imported to Microsoft Excel or Statistical Package for the Social Sciences (SPSS) for analysis.

The mean and standard deviation was used to determine the OER acceptability of the respondents in terms of (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. It was also used to compare the responses of the IT teachers with the students and determine the attribute or attributes that affect or affect the adoption of OER. The one-way ANOVA was used to determine if there is a difference in the OER acceptability of the IT teachers in terms of years of teaching experience. Similarly, ANOVA was also used to determine if there is a difference in the OER acceptability of IT students based on their year level. The results will be utilized by serving as a basis for the design of the OER training for IT teachers and OER-based IT course flipped classrooms. All answers were treated with the utmost confidentiality. Google form was used for the questionnaires and the name of the respondents was optional. The email address of the respondents was not recorded to keep confidentiality.

This study was submitted to the Saint Mary's University Research Ethics Board (SMUREB) for ethics review. The two (2) collaborators who are also IT teachers were excluded from answering the DOI questionnaire to prevent bias in the responses. The proponents recognized the fact that there is a perceived conflict of interest because the researchers are colleagues to the IT teacher-respondents or that they are from the same department hence there is a friendly relationship that might influence the responses and affect the results of the survey. Having known this, the researchers, to address concerns on vulnerability, the proponents included a clause that will make the respondents promise that their answers are true, honest, and objective and not influenced by the proponents. The proponents also emphasized that answering the DOI questionnaire is voluntary. It means not answering the questionnaire is their own choice and it was respected by the researchers. For the perceived influence of the researchers on the IT students, the researchers also emphasized to the students that answering the questionnaire is voluntary and that it will not affect the student's academic performance in whatever way. The importance of answering the questionnaire truthfully and getting biased-free answers from the IT teachers and IT students was emphasized. Respondents were requested to answer the questionnaire either in print or in Google form voluntarily and were not forced to answer if they do not want to. Health protocols such as physical distancing and wearing of face masks were

observed during the face-to-face distribution of questionnaires and training of teachers. No financial remuneration was released to respondents in exchange for answering the questionnaire. Even if they have chosen to participate voluntarily, they will have the right to refuse to continue and any information they have already provided will not be used in the study.

4. Results

Respondents Profile

Out of four (4) identified teacher respondents, only one (1) accomplished the questionnaire. On the other hand, out of the two (2) Computer Engineering full-time teachers, both or 100% answered the questionnaire. Out of the three (3) respondents, two (2) or 67% are Assistant Instructors, and one (1) or 33% is an Associate Professor. Moreover, all the respondents are female teachers.

Out of one hundred forty-nine (149) BSIT students enrolled in the semester, there were seventy-five (75), or 50% answered the questionnaire. Twenty-one (21) are first (1st) year students, eighteen (18) are second (2nd) year, twenty-two (22) are third (3rd) year, and fourteen (14) are fourth (4th) year students. In terms of sex, fifty-three (53) are male and twenty-two (22) are female BSIT students.

OER Acceptability of IT and Computer Engineering Teachers and IT Students

Table 1 and 2 displays the results of the acceptability of IT and Computer Engineering teachers and IT students using DOI, respectively.

Table 1 OER Acceptability of IT and Computer Engineering Teachers

	<i>Mean</i>	<i>SD</i>	<i>Qualitative Description</i>
Relative Advantage			
1. You can save money by using OER	3.33	0.57	Agree
2. You can save effort by using OER	3.33	0.57	Agree
3. You can save time by using OER	3.33	0.57	Agree
4. OER contributes to building students' capabilities	3.33	0.57	Agree
5. Sharing OER enhances my teacher's reputation	3.33	0.57	Agree
6. Using OER can enhance the reputation of my university	3.67	0.57	Agree
7. OER help me to be more effective	3.67	0.57	Agree
Overall Mean:	3.42		
Compatibility			
1. I don't accept others reviewing my educational resources	2.33	0.57	Disagree
2. I don't want to share my resources with others because I spent so much time and effort preparing them	2.33	0.57	Disagree
3. I don't trust other people to mention my name when sharing my resources	2.33	0.57	Disagree
4. I'm afraid of misuse of my OER	2.33	0.57	Disagree
5. When sharing my resources, I'm afraid of	2.67	0.57	Disagree

	<i>Mean</i>	<i>SD</i>	<i>Qualitative Description</i>
misuse of the Creative Commons license			
Overall Mean:	2.4		
Complexity			
1. It is easy for me to use OER	3.33	0.57	Agree
2. I find that dealing with OER is clear and understandable	3.66	0.57	Agree
3. Creative Commons licenses are difficult to find in educational resources	3	0	Agree
4. It is difficult for me to build Creative Commons licenses	2.66	0.57	Disagree
Overall Mean:	3.16		
Triability			
1. I want to try to use OER before its effective adoption in teaching	3	0	Agree
2. I want to try to use OER before its effective adoption in research	3	0	Agree
3. I want to try to use OER before effective adoption in training	3	0	Agree
4. My university allows staff to try using OER before effective adoption in teaching	3	0	Agree
5. My university allows staff to try using OER before effective adoption in research	3	0	Agree
6. My university allows staff to try using OER before effective adoption in training	3	0	Agree
Overall Mean:	3		
Observability			
1. OER provides opportunities to share research with others	3.33	0.57	Agree
2. OER provides opportunities for partnership in teaching	3.33	0.57	Agree
3. OER provides opportunities for sharing the teaching tasks	3.33	0.57	Agree
4. OER encourages cooperative learning	3.33	0.57	Agree
5. Creative Commons Licenses provide the possibility to benefit from the experiences of others	3	0	Agree
6. I don't see any benefit in mixing other people's work	2	0	Disagree
Overall Mean:	3.05		

The table above reveals that generally, the respondents have a positive attitude towards the adoption of OER, hence, it can be deduced that the respondents accept the adoption of OER in their department. Acceptance and adoption models, like DOI are used to determine the success of a product's implementation. The higher the acceptance, the bigger chance of adoption and implementation.

In terms of relative advantage, generally, respondents perceive that OER has advantages and opportunities when adopted. These advantages are saving money, effort, and time. Using OER is also perceived to enhance their reputation and the university. Aside from this, they also perceive that OER will help them be more effective. In terms of compatibility, the respondents are willing to share the educational resources that they have prepared. This might be due to the reason that sharing resources builds the reputation of a teacher as an expert in his/her field. Sharing resources also increases their professional value because sharing will help other teachers to grow.

Table 2 OER Acceptability of IT Students

	<i>Mean</i>	<i>SD</i>	<i>Qualitative Description</i>
Relative Advantage			
1. The OER is a positive innovation.	3.30	0.54	Agree
2. OER makes it more convenient to communicate with facilitators and friends.	3.30	0.51	Agree
3. Using OER saves time.	3.32	0.54	Agree
4. OER makes learning more meaningful.	3.24	0.53	Agree
5. OER is a fast and efficient way of getting information.	3.33	0.59	Agree
Overall Mean:	3.30		
Compatibility			
1. Using OER would require me to change my study habit.	2.96	0.74	Disagree
2. I am eager to respond to the discussion group on OER via LMS.	2.97	0.69	Disagree
3. OER is compatible with the way I study.	3.20	0.61	Agree
4. Using OER increases my interaction with the subject matter.	3.20	0.58	Agree
Overall Mean:	3.15		
Complexity			
1. OER is user-friendly.	3.24	0.62	Agree
2. When using OER, I find it easy to navigate from one screen to another.	3.13	0.67	Agree
3. I am confident in my ability to use OER.	3.08	0.62	Agree
Overall Mean:	3.15		
Triability			
1. OER do not intimidate me.	3.04	0.70	Agree
2. I am confident in my ability to try OER.	3.05	0.69	Agree
3. I do trial and error in working with OER	3.16	0.56	Agree
4. I can learn at a comfortable pace using OER	3.09	0.57	Agree
Overall Mean:	3.08		
Observability			
1. I am aware of OER even before I got admitted to SMU	2.58	0.76	Disagree
2. OER makes teaching real	2.90	0.63	Disagree
3. I have seen other schools using OER	2.69	0.81	Disagree

	<i>Mean</i>	<i>SD</i>	<i>Qualitative Description</i>
Overall Mean:	2.72		

The table above shows that IT students perceive that OER has a relative advantage and that it is a positive innovation for learning. Similar to the teachers, they agree that OER saves time and effort for it is a tool to get information fast and easy. While the results showed that teachers believe that OER will help them to teach more effectively, the students on the other hand believe that OER makes learning more meaningful. In terms of compatibility, the students agree that the use of OER is compatible with the way they study and that it will increase interaction with the subject matter. This might be attributed to the type of learning resources and activities that BSIT students are currently using, these are digitalized resources accessible via Learning Management System (LMS) that can be accessed through technological devices, such as laptops, mobile phones, and tablets. Similarly, students find OER user-friendly and easy to navigate. Moreover, they are confident in their ability to use the OER maybe because of the above reason that respondents are BSIT students who are familiar with digitalized resources and technology. The above results also showed that since students are confident in their ability to use OER, they too are confident to try OER. The results from the above table revealed that most of the respondents are not aware of OER before they got admitted to SMU nor they have seen other schools use OER. Despite the perceived relative advantages of OER, respondents do not believe that OER makes teaching real. This may be because OER is perceived only as supplementary resources and teachers still need to play a vital role to learn and awareness of its benefits still needs to be improved.

DOI attribute(s) that affects IT teachers and students' OER adoption most

The DOI attribute that affects the teachers' and students' OER acceptability most is the relative advantage. Compared to the results of other DOI attributes, the average mean of the relative advantage for both teachers and IT students is the highest, these are 3.42 and 3.30, respectively. These results reveal that both teachers and IT students perceived that the OER was beneficial for teaching and learning. Since the respondents, both teachers and students perceived that OER has advantages, the adoption of OER is encouraged.

The difference in the OER acceptability of IT and Computer Engineering teachers when grouped according to years of teaching experience

The table below shows the results using one-way ANOVA to determine if there is a significant difference in the OER acceptability of teachers when grouped according to years of teaching service.

Table 3 Comparison of OER Acceptability Response

One-way ANOVA SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
5 years	5	14.72	2.944	0.23163		
22 years	5	15.68	3.136	0.16473		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	0.092	1	0.09216	0.46	0.51	5.32
Within Groups	1.585	8	0.19818			
Total	1.677	9				

The table above reveals that there is no statistically significant difference between the means of the faculty responses when grouped according to years of teaching experience, therefore we cannot conclude that years of teaching experience affect OER acceptability.

The difference in the OER acceptability of IT students when grouped according to years of teaching experience

Table 4 Comparison of IT Students' OER Acceptability Response

One-way ANOVA SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
1	5	15.13	3.026	0.01963		
2	5	15.11	3.022	0.03937		
3	5	16.2	3.24	0.05715		
4	5	15.17	3.034	0.05108		

ANOVA							
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>	
Between Groups	0.1699	3	0.056	1.35	0.29	3.23	
Within Groups	0.6689	16	0.041				
Total	0.8388	19					

The table above reveals that there is no significant difference in the OER acceptability of IT students when grouped according to year level. This explains that the results of OER acceptability cannot be attributed to IT students' year level.

5. Discussion

The findings of this study show that generally the faculty and IT students have a positive attitude towards OER. This may be because faculty and IT students use the LMS in their teaching and learning which is accessed via the internet like OERs. Aside from this, they have experienced using online resources in their research or assignment which is part of their classroom activities. This may also be a factor that contributed to their positive response towards OER. Since they are using the internet for their teaching and learning, they may already be aware that some educational resources or OERs are open, free, shareable, and reused for better teaching and learning similar to the findings of Tlili, et al. (2021) and Hylén (2021). This means that faculty can use and reuse educational resources developed by other faculty members without the fear of violating copyright. That is, educational resources can be uploaded on the internet under Creative Commons licenses which can be optimized through the adoption of an OER-based flipped classroom.

Corollary to this, the respondents are willing to adopt the OER for their teaching and learning. In terms of relative advantage, both faculty and students perceive the OER as beneficial in terms of saving money, effort, and time while building students' capabilities. This may be because they are exposed to the internet where there are e-books, presentations, journals, and tutorials that are free to view, print and download. More importantly, they find OER as a positive innovation that will make learning more meaningful and is a fast and efficient way of getting information. With

this finding, the researchers are given hope that the adoption and implementation of OER in the SEAIT, IT Department would be a success.

In terms of compatibility, the teachers are open to sharing the resources that they have developed and are all right with other experts who critique it for learning resource improvement. They are open to the concept of sharing resources and recognize the benefits of sharing as an opportunity to collaborate and partner with other teachers. Aside from these, they also perceive that OER will provide them with the opportunity to share teaching tasks in developing resources and that it results in cooperative learning helping each faculty to grow professionally as teachers. Sharing of resources is one of OERs is one of the advantages that OERs advocate, and USAID (2020) emphasized the importance of sharing resources. The students, on the other hand, perceive that using OERs would not require them to change their study habits. This may be because the respondents are IT students who are familiar with internet resources and the use of e-learning tools such as Learning Management Systems which includes downloading and uploading resources from a tool that is powered by the internet like OER. In the study of Buć & Divjak, B. (2015), they wrote that OERs can be beneficial especially nowadays that most instructions are delivered in an e-learning environment.

The faculty respondents and the IT students do not find OER as complex, this may be because the respondents are all familiar with the use of technology and the internet where OERs can be found. Both teachers and IT students are confident and are not intimidated by the adoption and utilization of OERs for teaching and learning. This may be a sure sign that the utilization and the integration of OERs as an integral part of teaching and learning inside the classroom whether it be for face-to-face or blended learning will be a success. However, this study revealed that despite their familiarity with the internet the teachers are not familiar with the Creative Commons licenses, that is in finding and building licenses. Government agencies like the Commission on Higher Education and the Department of Education in partnership with USAID might be aware of this concern, hence they have conducted training on OERs and Creative Commons licenses (USAID, 2020). Having this finding in the study, the researchers see the need to focus on the Creative Commons Licenses in training or seminars that will be conducted in the future, that is, for the teachers to fully appreciate and implement the use of OERs.

Despite the positive response towards the adoption of OERs in this institution, the respondents, IT students particularly are not aware of OERs. This study revealed that OERs are not commonly used in other schools, either. The study of Javillonar, Peregrino & Caballes (2020), revealed that despite the positive response to the advantages of using OERs and the teachers' willingness to adopt OER, awareness remains an issue. They wrote that awareness is key to the successful adoption and implementation of OER and that they recommend that the training on OER should be strengthened to make teachers fully aware and ready for its successful implementation.

Using the one-way ANOVA, the findings of the study showed that there is no difference in the OER acceptability of teachers when grouped according to years of service. The same with the IT students that showed no difference in the OER acceptance when grouped according to year level. This finding might be attributed to the fact that OERs are not widely utilized, and many are not yet aware if not OERs are not widely utilized in the Philippines, despite the efforts from CHED and DepEd to integrate OERs in classroom teaching (Peregrino, et al., (2020); Arinto and Cantada, 2013). Since classes are now using the face-to-face mode of instruction

delivery, the researchers propose to utilize OER to the fullest by integrating using the flipped classroom approach. In the study of Mosquera, F., et al. (2021), the flipped classroom was used to augment the learning of students by providing them with resources from OERs to boost students' learning and improve comprehension and reading, collaborative work, critical thinking, and creativity. With this in mind, the researchers will develop an OER-based flipped classroom syllabus to serve as a model for teacher training. Aside from this, the researchers realized that OERs can also be used or combined with other teaching methods, such as blended learning, student-centred approach, project-based learning and so on. With this in mind, research can also be conducted on how to integrate OERs into different types of teaching methods or strategies.

The researchers despite their efforts to gather responses from all identified respondents, cannot because it is emphasized that answering the questionnaire is voluntary. This could be the reason why the number of respondents, both from teachers and IT students is only limited to those who wanted and are willing to answer the questionnaire.

6. Conclusion

Based on the findings of this study, the researchers conclude that an OER capacity-building project or training is welcomed and accepted by both IT and Computer Engineering teachers and IT students. The researchers also conclude that both teachers and students perceive OERs as advantageous for teaching and learning, more so in saving time and the cost of educational resources. The use of OERs is compatible with the existing way or method that teachers teach and students learn. Also, OERs' are not complex for them to use in their teaching and learning, and they will try and adopt OER as part of their classroom delivery provided that before adoption and implementation, they may be trained first for its effective integration. Of the five (5) DOI attributes, the relative advantage is the attribute that contributed most to the reason that both teachers and students accept the adoption of OER. The researchers also conclude that years of service of teachers and the student's year level do not affect the acceptance of OER for adoption. Despite the positive attitude of respondents towards the adoption of OER in their teaching and learning, based on the findings, it can be deduced that the teachers and IT students are not fully aware of OER which resulted in non-utilization of OER. With this, it is therefore concluded that an OER project which includes increasing awareness, the use of OERs, and its integration in the classroom setting is needed for a successful OER adoption.

For future research, it is recommended that the study be replicated in other schools in the university. Also, an evaluation of the OER-based flipped classroom adoption is conducted for its improvement. Moreover, it is also recommended that a study on OER integration with other teaching methods or strategies be considered for future research.

7. Acknowledgements

The authors would like to acknowledge the top administration for their support, and most especially the URC Director who provided us with an opportunity to produce and present this research in an international conference.

8. References

- Afolabi, F. (2017). First-Year Learning Experiences of University Undergraduates in the Use of Open Educational Resources in Online Learning. *International Review of Research in Open and Distributed Learning*. Vol. 18, No. 7.
- Arinto, P. & Cantada, R. (2013). OER in Philippine Higher Education: A Preliminary Study. G. Dhanaran and D. Porter (Eds). *Open Educational Resources: An Asian Perspective*. pp. 143-159. Commonwealth of Learning and OER Asia. https://www.oerknowledgecloud.org/archive/pub_PS_OER_Asia_web.pdf
- Badai, Nabila & Ajmi, Zamzam & Naidu, Vikas Rao. (2017). Effectiveness of Open Educational Resources for enhanced learning in a flipped classroom. 8657-8661. 10.21125/iceri.2017.2358.
- Buč, S., & Divjak, B. (2015). Environmental factors in the diffusion of innovation model: diffusion of e-learning in a higher education institution. *International Conference of e-Learning*. <https://files.eric.ed.gov/fulltext/ED562467.pdf>
- CHED (2020). *CMO 4, s. 2020 Guidelines on the Implementation of Flexible Learning*. CHED Central Office. <https://chedro3.ched.gov.ph/wp-content/uploads/2020/10/CMO-No.-4-s.-2020-Guidelines-on-the-Implementation-of-Flexible-Learning.pdf>
- Hylén, J., (2021). Open educational resources: Opportunities and Challenges.
- Jwaifel, M. and Gasaymeh, A. (2013). Using the Diffusion of Innovation Theory to Explain the Degree of English Teachers' Adoption of Interactive Whiteboards in the Modern Systems School in Jordan: A Case Study. *Contemporary Educational Technology*, 4(2), 138-149. <https://files.eric.ed.gov/fulltext/EJ1105530.pdf>
- Li, Y., Zhang, M., Bonk, C. J., Zhang, W., & Guo, Y. (2015). Integrating MOOC and Flipped Classroom Practice in a Traditional Undergraduate Course: Students' Experience and Perceptions. *International Journal of Emerging Technologies in Learning (iJET)*, 10(6), 4-10. https://www.academia.edu/19790205/Li_Y_Zhang_M_Bonk_C_J_Zhang_W_and_Guo_Y_2015_Integrating_MOOC_and_Flipped_Classroom_Practice_in_a_Traditional_Undergraduate_Course_Students_Experience_and_Perceptions_International_Journal_of_Emerging_Technologies_in_Learning_iJET_10_6_4_10.
- Menzli, L.J., et al. (2022). Investigation of open educational resources adoption in higher education using Rogers' diffusion of innovation theory. *Heliyon*, 8 (7) <https://doi.org/10.1016/j.heliyon.2022.e09885>
- Mosquera, J.C.; Suárez, F.; Chiyón, I.; Alberti, M.G. (2021) Some Web-Based Experiences from Flipped Classroom Techniques in AEC Modules during the COVID-19 Lockdown. *Educ.Sci.* 2021, 11, 211. <https://doi.org/10.3390/educsci11050211>
- Peregrino, L., Caballes, D., and Javillonar, M. (2020). Public Secondary School Teachers' Awareness of Open Educational Resources (OER). *CiiT International Journal of Programmable Device Circuits and Systems*. Vol 12, No 4, April 2020. https://www.researchgate.net/publication/349211283_Public_Secondary_School_Teacher_s'_Awareness_of_Open_Educational_Resources_OER/link/6024f84192851c4ed5639bab/download

- Tlili, A., Zhang, J., Papamitsiou, Z. et al. (2021). Towards utilizing emerging technologies to address the challenges of using Open Educational Resources: a vision of the future. *Education Tech Research Dev* **69**, 515–532. <https://doi.org/10.1007/s11423-021-09993-4>
- USAID (2020) Open Educational Resources in Philippine Schools. *Topic Brief on Open Educational Resources in Philippine Schools*. https://ierc-publicfiles.s3.amazonaws.com/public/resources/OER_Brief_FINAL_0.pdf
- Villanueva, L. and Dolom, MA (2018). Adoption of Open Educational Resources Among Teachers in a Rural Public High School in the Philippines. *ASEAN Journal of Open Distance Learning*. Vol. 10, 1. June 2018.

9. Authors Biodata

Gertrude Garingan Danao is the current University Registrar and a part-time faculty of the School of Engineering, Architecture and Information Technology and School of Graduate Studies. She finished her doctorate in eLearning Methodology at the Assumption University of Thailand, her master's degree in Information Technology at Dela Salle University, her master's degree in Business Administration at Saint Mary's University, and her baccalaureate degree in Commerce Major in Computer Science at San Sebastian College – Recoletos, Manila.

Rogie B. Taborda is the current department head of the School of Engineering, Architecture, and Information Technology at Saint Mary's University. He is a part-time faculty of the School of Graduate Studies. He finished his master's and bachelor's degree in Information Technology at Saint Mary's University.

Rocel Audrey J. Batara is a faculty of the School of Engineering, Architecture, and Information Technology. She finished her bachelor's degree in Information Technology at Saint Mary's University and is currently thesis writing for her master's degree in Information Technology.

Mabel D. Mamaoag is a graduate of Master of Arts in Teaching. She is a faculty of the School of Teacher Education and Humanities at Saint Mary's University of Bayombong.

Bolstering Hybrid Facilitation of Learner -Centered Teaching vis-à-vis Re-appropriated Pedagogy and Intervention on Academic Challenges

Liberty A. Rosario

Saint Mary's University, Bayombong, Nueva Vizcaya, Philippines

Email : lrosario@smu.edu.ph

Abstract

The study surfaced the emerging level of readiness on transition challenges from temporary on-line modality of delivery to face -to-face learning with hybrid facilitation of learner - centered teaching. Hybrid learning in Higher Education Institutions (HEIs) remains a formidable scheme directed to provide the most efficient and most effective instruction experience by combining curricular and instructional modalities. The university learning management system (LMS) should be retained and embedded into a flipped-learning methodology to motivate and stimulate critical thinking and a deeper understanding of diverse concepts. Holistic pedagogy and intervention become the response in managing and scaffolding measures in the educational field. With the sudden shift on on-line learning to face-to-face modality, barriers encountered were re-evaluated to re-appropriate strategies and methods as pathway for more efficacy on hybrid learning. Classroom technology provides the arena in boosting competencies and resources in digitally enhanced teaching and learning. Out from the 442 tertiary students, the level of readiness was rated to a great extent with a mean score of 3.56 and SD of .954 which is less dispersed and more reliable in relation to the mean value. The adjustments made in diverse ways were the dominant challenges that confronted the teaching - learning process. The culture of hybrid learning modality and environment significantly served as the saving portal to incessantly respond to the emerging needs of time. Facilitation of learner- centered teaching opened-up immense avenues to bolster, improve, and sustain practices among teachers and students in most challenging circumstances.

Keywords : hybrid learning, facilitation, pedagogy, learner- centered teaching, transition, readiness

Introduction

Education is ever evolving and changing. It is imperative to bolster practices through scaffolding and management of the facilitation of hybrid learning. Effective pedagogy and intervention should be maximized to respond to the emerging needs of learners in a full swing face-to-face modality. The existing curriculum becomes functional only if it fulfills its task as the heart and soul of the educational processes. How mentors approach their teaching style and blend theories in classroom instruction becomes paramount in the teaching-learning repertoire. Behind the success of any academic endeavor is the innovation integrated in every lesson. In this study, the objectives included the task to find out the extent of readiness of learners along the transition pathway to hybrid full swing face- to- face modality; to craft re-appropriated pedagogy and intervention as learning is indubitably multi-faceted and to determine the efficacy of facilitation of learner-centered teaching. The study evidently surfaced the emerging readiness, challenges and practices on face -to-face learning with full swing hybrid facilitation of learner - centered teaching in the post-pandemic era. While on-line learning became initially the saving portal to incessantly respond to the emerging needs of time, challenging dimensions are forwarded to keep pace with the current state to address concerns and issues in the continuity of

education. Pedagogy that is armed with hybrid learning becomes an entry point in the educative process. Distance learning has evolved over the years in the multiplicity of circumstances. It is readily known as Open and Distance Learning (ODL). Generally, it is a form of open learning where students can pursue a preferred course or subject without any classroom presence. According to UNESCO (2004), ODL has developed into a significant worldwide system in resolving issues of access to education. In another hindsight, distance learning is thought of to be a new term since the conventional way of accessing education is through face-to-face instruction. Synonymously, it is referred to hybrid learning. The term has been popularly used and utilized for about 100 years, which started through correspondence courses, one of the early forms conducted in Europe (Valentine, 2002).

Further, as described in another fashion, such can be attributed to correspondence courses and programs that are provided by a school institution wherein instructional materials are provided through electronic transmission or mail to learners. In the Philippines, distance learning started to be commercialized in the earlier years of 2000 together with the improvement of the Information and Communication Technology (ICT) sector both in educational institutions and government facilities although there were challenges encountered due to the absence of substantial ICT facilities to sustain the service (Dela Cruz, Garcia, & Galeon, 2019). Most of the Higher Education Institution has gone back gradually with the face-to-face modality and has transitioned efficaciously to respond to the various challenges of post-pandemic era wherein hybrid learning remains to be the choice not to be evaded. Hybrid learning is cognizant of the inclusion of formidable paradigm of shifting interventions in providing the four pillars of education. With unprecedented events, there is a continuing goal to bolster every learning possibility in facilitating learner-centered teaching.

The pandemic era for the past two years brought several disruptions in the whole web of human life around the globe. Academically speaking, this has been resolved with the adaptation of hybrid facilitation of learner-centered teaching. Further, even the current situation still poses several challenges. Hence, continuing innovations should be put into place by bolstering its facilitation. There is an inevitable need to provide the pillars of education that are aligned to the competencies attached to program and area of discipline chosen. The ever-evolving needs of students have given space for innovation. Along this, distance learning's definition and pedagogy have also changed due to the improvement of technology and other means related to education. Through the internet, Learning Management System (LMS), and other online learning platforms present today, distance learning have been taken into new ways, permitting distance learning to be conducted in real time. At the present time, different Learning Management System or LMS are being utilized, such as Google Classroom, Edmodo, and Moodle, to conduct online learning aside from softwares used as a web conferencing tool to manage live video sessions. According to Ostendorf (1997), instruction through live video session is the most well-known and fastest medium of instruction in the United States. This is also true in the Philippines wherein both blended-learning and flexible learning includes the use of online instruction.

With the abrupt incursion of the COVID-19 in the Philippines, all school institution had to suspend the conduction of face-to-face classes according to the directives of Department of Education (DepEd) and the Commission on Higher Education (CHED). However, DepEd, CHED, faculty and staff, students, and administrators are not really ready and still progressing in dealing with the new normal of learning amidst the pandemic (Villanueva, 2020). The Dep-Ed, specifically, have thought of a mix of radio and TV, modular, and online or electronic under the

so-called “blended-learning.” As for the CHED, they have come up with “flexible learning”, which likewise incorporate e-learning or online learning that numerous schools and colleges in the Philippines have been doing even before. Although technology have provided a compromise in order to have continued access to education, there are still major problems encountered in distance learning such as the quality of instruction, efficiency of online learning schemes, attitudes of students, instructors, and administrators, and conduciveness of learning environment. Every single one of these affects the general nature of distance learning as an output. From multiple points of view, every one of these issues identifies with the others.

According to Afshin, Mohammadi, Raeisy, and Sarvestani (2019), the development and utilization of e-learning in the educational system have been quite possibly the main accomplishments of higher or tertiary education that can address problems of the educational system. One of the problems of the society is how to address the challenges/difficulties of online learning. The study’s purpose was to explore students’ experience of the challenges of online learning at Shiraz University of Medical Sciences (SUMS), a virtual school based at Shiraz, Iran.

Interestingly, the current study provided opportunities that highlighted the immense contribution of hybrid learning. This implies that while challenges are abound in the face-to-face learning, it is significantly necessary to embrace pedagogy and strategy that are anchored on learner-centeredness and other educational psychologies, as they apply to facilitate the delivery of teaching and learning.(Bulusan, 2019). Moreover. as stated by Altug, Basay, Bolelli, Cetin, Esen, and Ozcan (2020), European nations were also surprised, just like other countries, not just in battling the COVID-19 pandemic or the spread of the virus, but also commencing distance learning as an alternative face-to-face schooling. Aside from the health and economic sectors, the pandemic has also an effect on the education system all around the world. Europe turned into the focal point of the sicknesses after the episode of pandemic in China. As a result, it attained more alarming cases in the U.S. In addition, European nations are implementing distance learning and digital schooling to ensure the continuation of learning. Despite the fact that Sweden and Iceland have kept schools open, different areas had locked schools on March 16. The vast majority of the nations, whose public educational plans are very unique in relation to each other, had to swiftly adopt to distance learning even though they are uneasy and fully ready about it. The pandemic that affected a vast number of students in Europe had more impact to public schools.

Chiwanza, Mapuranga, Musingafi, and Zebron (2015) conducted a study concerning the challenges and experiences of ODL from students of Zimbabwe Open University, a university in Zimbabwe, Africa. The research’s objective was to discover the challenges tackled by students of at the ZOU. The methodology employed for the study was qualitative and quantitative approaches. The primary techniques used for collecting data were structured interviews and questionnaires, complemented by documentary/narrative review. Tables, rates, and frequencies were the central descriptive statistics utilized to evaluate and portray the results. The results indicated that ODL students had a hard time with a variety of hindrances in their course of learning. According to reports, the primary challenges were the insufficient time to study, limited access and difficulty in the usage of ICT, inefficient response and short supply of learning materials. One of the recommendations was to make ZOU improve, and strive for the quality of education they delivered to attain efficient and balanced education and learning system, which meets the need of the students to the point that they would want to learn more and even recommend the university to others. On the online research article written by Shivangi Dhawan (2020), schools, universities, and colleges in India are still immersed on conventional means of

academic learning, which is face-to-face instruction in a classroom setting. Even though numerous school institutions have begun adopting to blended learning, some countries, such as India, are still left with the usual means of education. The unexpected outbreak of the deadly illness termed COVID-19 brought about by a Corona Virus (SARS-CoV-2) surprised the entire globe, which is why the World Health Organization (WHO) proclaimed it as a pandemic.

The present scenario challenged the system of education around the world and constrained instructors to adopt to an online method of educating for a limited span of time. Reluctant institutions had to change from traditional pedagogical approach into online teaching–learning. The cited work also included the analysis of Strengths, Weaknesses, Opportunities, & Challenges or SWOC of online learning mediums throughout the time of crisis, and the relevance of online learning. The article also presented the development of EdTech Start-ups throughout the times of calamities and crisis (pandemic), and recommendations on how school institutions will address challenges relating to e-learning, such as having a high level of preparedness in order to be faster in adapting to sudden changes within the society and in utilizing other modes of delivery/instruction.

As mentioned by Alberto, Baron, Baticulon, Clarion, Mabulay, Reyes, Rizada, Sy, and Tiu (2020) in their research, medical academic institutions had to suddenly shift from face-to-face learning to online learning. The research aimed to determine online learning barriers in the perception of medical learners in the Philippines, a developing country. The method utilized for collecting data was an electronic survey sent to the subjects of the study, which are solely Filipino medical students. The research instrument was comprised of Likert scale, multiple choice, and open-ended questions. Through applying descriptive statistics, the research learned that among the subjects, there are 93% that owned a smartphone and 83% had a desktop computer or laptop. A total of 79% used a postpaid internet payment whereas 19% of the subjects consumed prepaid mobile data to access resources in the online web. According to the research, there are currently only 45% (1,505 students) who regarded themselves as mentally and physically ready to engage in on-line learning. The barriers identified by the research were classified into five (5) classifications, namely, individual, technological, institutional, domestic, and community barriers. The primary challenges tackled by the subjects of the research were adjustment in styles of learning, conduciveness of home in doing duties and responsibilities, and little interaction between instructors and students.

Higher Education Institutions are given immense responsibility to keep pace with the emerging needs of learners. Bridging the gap with the pandemic time to post – pandemic era necessitates the use of hybrid learning which is defined as an educational model where some students attend class in person, while others join the class in person. Academicians mentor remote and in-person students and simultaneously use tools and LMS for video conferencing. Along this, the completed study explored the level of readiness among students in the HEIs which suddenly returned to full swing face-to-face hybrid learning.

Methodology

The research was conducted in Saint Mary's University, a premier school in Region 2 which tapped hybrid learning and currently in the full swing implementation of face-to-face scheme. The instrument previously used in on-line evaluation and assessment of on-line facilitation of learning was adapted and modified to re-appropriate on the focus of the conducted study. The final survey questionnaire crafted by the research team coming from multi-

disciplinary areas was checked and validated by the ULRC and UREB prior to the conduct of the study. An on-line survey form was utilized to collect data from 1st, 2nd, and 3rd year students from SMU. The research instrument has been appended with the link on google drive which was sent and provided to the selected 442 respondents from the different schools which included those enrolled for the current academic year of 2022-2023. The data was retrieved from the students on google drive wherein both quantitative and qualitative questions were included to surface the emerging challenges experienced on transitioning to hybrid learning modality. Basic descriptive design was utilized to explore and to expand the knowledge attributed to hybrid learning and laid the foundation for conclusive researches in the future. The research utilized mixed method research or the use of both quantitative and qualitative approaches in gathering data. Data culled from the students' responses were analyzed to unravel the extent of readiness and challenges of the students on full swing face-to face modality along hybrid scheme. The research determined, assessed, and summarized the experiences and challenges of full swing face-to face learning along hybrid learning modality of students. Challenges on adjustment surfaced became the bases of the program crafted meant to scaffold and manage hybrid learning. The raw data was systematically collected and organized. The collected data was analyzed through the use of descriptive statistics, involving frequency, cumulative frequency, mean and standard deviation. After which, it was analyzed through descriptive statistics. The statistical tool used to analyze the data was SPSS version 23, Excel, and Microsoft software application. These parameters were the descriptive statistics that were applied to the raw data. With the quantitative and qualitative approach in gathering the data needed to surface the challenges experienced by the different students during the full swing hybrid learning, analysis and interpretations of data were aided and validated with focus group discussion conducted with the different respondents. This became the alternate intervention in assisting the students. Further, it went through the simple diagnosis of the pervasive challenges encountered by students in the transition from on-line teaching to face-to face modality vis-à-vis hybrid learning as avenue to heightened more efficacious pedagogy responsive to the emerging needs of learners. Finally, the overall mean score on readiness 3.56 and standard deviation (SD) of .954 were computed and analyzed to shed more light on the results and alternate interpretation of the study. According to the range rule of standard deviation, the SD is low and indicates that the dataset is less dispersed and more reliable in relation to the mean value. In general, this finding implies that the data gathered are reliable, and thus, the quantitative data from sampling size is representative of the whole population

Results

The research conducted became an entry point to diagnose and determine the *great extent* level of readiness among the learners who were immersed on the full swing face-to-face learning modality with hybrid digital classroom. Indeed, transitioning to this pathway definitely posed several challenges among the various respondents from the different schools. Readiness was evidently rated to a great extent. Further, focus group discussion heightened the validity of the findings. The over-all mean score of 3.56 on readiness and standard deviation of .954 evidently reflected the consistent reliability of the study. It is further revealed that out from the 442 tertiary students, the level of readiness was rated to a *great extent*. The *standard deviation (SD) of .954* which is interpreted as less dispersed and more reliable in relation to the mean value Hence, the inclusion of intervention directed to the facilitation of learner- centered teaching which combined hybrid learning has been crafted . Interestingly, the focus group discussion conducted with the

respondents also laid down significant findings and results. Most of the students expressed their eagerness to get back with the full-swing hybrid face to face learning modality. As 4 students expressed:

” I want to get back to school but on-line modality should be used as well ” and “ The LMS should continue and hybrid learning culture should be supported by the school”.

Significantly, it can be interpreted from these comments that creative thinking and innovation in classroom technology can definitely bolster learner-centered teaching among students and teachers who previously went through on-line learning. While there are challenges on hand, pedagogies and digital applications are there to be maximized and be aligned with the expected learning outcomes in the teaching- learning process. The post- pandemic era has ushered several uncertainties and changes but with the unceasing challenge to embrace the immense opportunities provided by hybrid learning. While on-line-learning became the saving grace during the onslaught of COVID – 19 and finally gradual re-adaptation of the face-to-face formidably became the option, the need to bolster hybrid facilitation of learner-centered teaching remains to be a must and should not be totally disregarded. Anticipation of the provision of intervention should be underway no matter what.

Section 1: Profile of the Learners

Section 1 presents several tables that reflect the number of respondents, year, program, sex and modality of learning wanted during the initial year of the implementation of face-to-face learning for the school year 2022-2023. The profile of the learners who have transitioned from on-line learning to full swing face -to face hybrid learning is further categorized to succinctly determine the extent of readiness of the learners on hybrid learning.

Table 1: Profile of Learners: Year Level

Year Level	Frequency	Percent	Mean	Standard Deviation	Valid Percent	Cumulative Percent
1	221	50.0	3.60	0.42	50.0	50.0
2	97	21.9	3.51	0.47	21.9	71.9
3	124	28.1	3.55	0.44	28.1	100.0
Total	442	100.0	3.55	0.44	100.0	

Table 1 shows the profile of learners along year level. Significantly, most of the respondents were freshmen with a total of 221 which includes 50 percent of the 442 students who participated in the survey checklist. This is followed by the junior students with a total of 124 which 28.1 percent of the over-all number of students. The sophomore got the smallest percentage of 21.9 which means there were only 97 respondents. Dominantly, most of the mean score and standard deviation value are low which amplify the result that it is less dispersed and more reliable in relation to the mean value.

Table 2: Profile of Learners: Program and School

	Frequency	Percent	Mean	Standard Deviation	Valid Percent	Cumulative Percent
BSAR	22	5.0	3.27	0.39	5.0	5.0
BSCE	115	26.0	3.60	0.43	26.0	31.0
BScpE	9	2.0	3.82	0.33	2.0	33.0
BSECE	5	1.1	3.98	0.78	1.1	34.2
BSEE	17	3.8	3.62	0.55	3.8	38.0

	Frequency	Percent	Mean	Standard Deviation	Valid Percent	Cumulative Percent
BSIT	7	1.6	3.45	0.31	1.6	39.6
SAB	73	16.5	3.54	0.39	16.5	56.1
SHANS	86	19.5	3.54	0.42	19.5	75.6
STEH	108	24.4	3.55	0.46	24.4	100.0
Total	442	100.0	3.56	0.44	100.0	

Table 2 presents the profile of learners along program and school enrolled. There were freshmen students who responded. Most of the students came from SEAIT, in particular those were freshmen and who were enrolled with Bachelor of Civil Engineering program. A total of 1 engineering students dominated the number of respondents. The overall SD was 0.44 which implies the data set is less dispersed and more reliable in relation to the mean value. In general, this finding that the data gathered is reliable, and thus, the quantitative data from sampling size is representative of the whole population.

Significantly, the school of SHANS with students who are enrolled in Bachelor of Science in Nursing included the least number of respondents. This could be justified as most of them were immersed in the different hospital and community work. As opined, there are programs which are categorized with more intricate schedule which is why even answering the survey question was seen difficult.

Table 3 Profile of Learners: Sex

	Frequency	Percent	Mean	Standard Deviation	Valid Percent	Cumulative Percent
Valid Female	267	60.4	3.57	0.42	60.4	60.4
Male	175	39.6	3.53	0.47	39.6	100.0
Total	442	100.0	3.55	0.44	100.0	

There were 442 students coming from the various schools and different programs. Dominantly, the study was dominated by female, with 267 respondents in contrast with 175 males. The overall standard deviation (SD) is 0.42 for female and 0.47 for male. The SD is low and indicates that the dataset is less dispersed and more reliable in relation to the mean value. In general, it also implies that the data gathered are reliable, and thus, the quantitative data from sampling size is representative of the whole population of the respondents.

Table 4 Preferred Modality of Learning

Modality of Learning	Mean	Standard Deviation	Extent
Face-to-face	4.24	.811	4.24 very great extent
Hybrid Learning	3.85	.867	3.85 great extent

In terms of preferred modality of learning, most of the respondents chose face-to-face, with the *mean score of 4.24, very great extent with .811 SD*. Nonetheless, hybrid learning was also rated with a *mean score of 3.85, great extent with .867 SD*. Consistently, it also implies that the data gathered are reliable, and thus, the quantitative data from sampling size is representative of the whole population. Interestingly, several respondents signified the use of hybrid learning where both face-to-face and are on-line are maximized. It can be gleaned from the results that many of the learners selected the inclusion of both face-to-face and on-line modalities. The use

of the LMS has been rated with a *mean score of 3.47* which means that it is significantly useful and can never be discounted as a platform in more effective learning modality. This confirms that hybrid learning has become more effective most specifically that most of the students just transitioned from a 2 - year on-line modality of learning. Hybrid is defined as learning activities that involve a systematic combination of face-to-face and technology-based interactions between students and teachers, and it is an increasingly widespread approach in the education and training settings (Bliuc et al., 2007 as cited in Okuroglu & Alapar, 2022). More than ever, there are advantages that surfaced as many students found adjustments along the abrupt face-to-face learning modality. This means that while they were immersed with such modality, they still found on-line to be helpful in terms of complementing face-to-face learning.

The statement “I find hybrid learning a practical and logical scheme during this post - pandemic era was rated with a mean score of *3.64, great extent*. This further reveals that many students prefer a hybrid modality of learning which is not limited to on-line scheme but blended in nature. While this modality surfaced the experiences of the learners who are on full-swing face- to- face, there is still a clamor that interspersed activities provided on line should be re-strengthened depending on the need and urgency.

Section 2: Level of Readiness on Full Swing Face-to-face through Hybrid Learning

Table 5 Level of Readiness on Full Swing Face-to-face through Hybrid Learning

QUESTIONS	MEAN	STD DEV
1. I find face- to-face learning enjoyable as I personally keep contact with my teachers and classmates.	4.24	.811
2. I can easily reach out and contact my teachers during hybrid facilitation of learner-centered classes.	3.85	.867
3. I find the Learning Management System (LMS) operational and effective during this face-to face modality.	3.47	1.135
4. I can easily connect with the internet any time of the day.	3.10	1.114
5. I experience more challenges in on line class than in face to face.	3.64	1.088
6. I benefit much on on-line learning scheme in terms of information, formation and transformation	3.09	1.009
7. I experience the support and assistance of the school administration on various needs during this face -to face.	3.83	.888
8. I take the subjects seriously in face- to- face classes since I am more ready than in on-line	4.13	.787
9. I can manage my time with other activities while learning.	3.68	.878
10. I enjoy on-line classes more than face to face.	2.67	1.160
11. I experience the help and consideration of my teachers on academic requirements during this full swing face-to-face learning with hybrid pedagogy.	3.80	.867
12. I find our classroom more conducive for my hybrid learning.	3.73	.853
13. I use my computer, smartphone and other devices in online learning without difficulty.	3.38	1.113
14. I submit my requirements on time during face-to face than on on-line classes.	4.00	.943
15. I respond well with the method of examinations given in in face- to -face and LMS	3.96	.803
16. I can do multi-tasking while in full swing -hybrid class.	3.40	.918
17. I participate on synchronous meeting using Google Meet, Zoom, Webcon which are effective applications for classroom discussion and recitation even this full swing face-to-face hybrid learning.	3.40	1.061
18. I find hybrid learning a practical and logical scheme during this post-pandemic era.	3.64	.856
19. I find hybrid learning a practical and logical scheme during this post-	3.65	.858

QUESTIONS	MEAN	STD DEV
pandemic era.		
20. I look forward to our face-to-face hybrid learning with enthusiasm and vigor every day	3.82	.884
21. I experience clarity and accuracy of my learnings on- line.	3.02	.980
22. I like on- line learning better than face- to- face.	2.57	1.184
23. I show readiness with full swing face-to-face with hybrid learning.	3.67	.832
24. I find on-line learning more affordable than in face to face.	3.65	1.123
25. I feel lighter in terms of academic pressures in full swing face- to- face along with hybrid learning	3.49	.850
OVERALL MEAN and SD	3.56	.954

Table 5 reveals that level of readiness of the various respondents on full- swing face -to- face was rated **3.56 qualified as great extent with standard deviation of .954 (SD)**. This means that the students' response on hybrid full swing face- to- face is significantly attuned with their expectations on the initial implementation of such modality after the two- year on-line scheme of learning. Further, the statement "***I like on-line learning better than face- to- face***" was rated the lowest mean score of 2.57, **moderate extent**. This confirms that face -to-face hybrid learning is much appreciated over pure on- line learning modality. In similar fashion, the statement "***I take the subjects seriously in face- to- face classes since I am more ready than in on-line***" was rated the second highest with the mean score of **4.13, very great extent** which is amplifies the preference of hybrid face-to face learning over single on-line modality. Interestingly, the statement "***I submit my requirements on time during face-to face than on on-line classes***" was rated with a mean score of **4.00 qualified as great extent**. As emphasized by Yang, F., & Yutai, R. (2022) blended learning is a combination of traditional face-to-face teaching and digital learning, but this combination is not a mechanical superimposition of learning styles, but a rational product of the process of informatization in education, a new way of learning that emerges from reflecting on the application of learning theories and technologies when attempts to reform or replace traditional classroom teaching with E-learning are not as effective as they could be. This then presupposes the use of both face-to-face and on-line learning. Further, the conducted study significantly affirmed the wanting and preference of face-to-face along with computer aided mode of the delivery of lesson. The statement" I look forward to our face-to-face hybrid learning with enthusiasm and vigor every day" has been rated **3.82, great extent** which clearly affirms the edge of hybrid face-to-face learning over on-line learning. The statements "***I feel lighter in terms of academic pressures in full swing face- to- face along with hybrid learning***" rated **3.49** qualified as **great extent**" and "***I show readiness with full swing face-to- face with hybrid learning***" were rated to a **great** extent with mean scores of **3.49 and 3.67** respectively.

Significantly, the statement "***I find hybrid learning a practical and logical scheme during this post- pandemic era***" was rated with a mean score of **3.64** which is to a **great extent**. This implies the functionality of hybrid learning among the 442 respondents. As affirmed by Liu et al. (2016 as cited in Okuroglu & Alapar, 2022) hybrid learning appears to be more effective than non-hybrid instruction for knowledge acquisition in health professions. This applies so much among others in so far as many of the respondents also came from the School of Health and Sciences who practically needed the scheme to heighten multi-faceted learning.

Section 3: Challenges and Experiences encountered by the respondents on full swing face-to-face modality blended with hybrid learning

Table 6 Challenges and experiences Encountered

Challenges and experiences	Number of students
Adjustments	157
Time	67
No reason mentioned	66
Financial	42
Internet connection	31
Transportation	30
Requirements	22
Attitude	16
Teachers	11
TOTAL OF RESPONDENTS	442

Table 6 reveals the various challenges encountered by the respondents. Significantly, there were 157 respondents who targeted adjustments as the main reason for the challenges made. This was followed by 67 students who mentioned time management as one of the difficult factors they experienced in having the full-swing hybrid face-to-face learning modality. In contrast, sixty-six students however did not put any reason. There were also 42 students who revealed that financial concerns were seen tough most especially that there were many who did not have stable income after the pandemic. Thirty -one students also mentioned the problem on unstable internet connection which means that even after the pandemic, this is still seen as the impending danger for hybrid learning among others. In terms of transportation, there were 30 students who found difficulty commuting after the 2- year on-line modality of learning, There were also 22 students who highlighted the challenge and delay on submission of requirements they need to produce. Further, sixteen students revealed that their attitude also became a challenge as there was difficulty making adjustments. This can be affirmed with the students' revelation that they have developed complacency during the pandemic time and somehow wanted to stay at home. There were also eleven students who explicitly mentioned some challenges rooting from their teachers. Over-all, from the 442 respondents, it is evident that challenges were experienced in diverse ways and gravity.

Section 4: Intervention to be provided by teachers and students to bolster the facilitation of learner-centered teaching in the post- pandemic era

The study arrived at an intervention to bolters the facilitation of learner-centered teaching in the post pandemic era that is aligned with the existing needs of the respondents as well as the other students who sought some challenges on hybrid learning.

Significantly, the scaffolding and managing of the hybrid learning can be achieved to bolster the learning efficaciously. Indeed, it can be surmised that even face-to-face has been initiated for academic year 2022-2023, one can never discount the huge contribution of hybrid learning modality. Duncan (2022) revealed that as trying as these times, thinking creatively and innovatively, including the development of digital skills across all disciples should come to the fore. Indeed, hybrid learning is multi-faceted in giving everybody a chance to learn.

Section 5: The measure of the effectivity of the intervention among stakeholders

The study revealed the multi-faceted plight of the different stakeholders on the hybrid full-swing-face-to-face learning scheme. Diverse challenges were experienced. Significantly, while there were 157 out from 442 respondents who mentioned adjustments as the prime reason the struggles they encountered, the extent of their readiness with the mean score of **3.56** *qualified as great extent*. The motivation to learn in any modality fueled their interest to complete and accomplish their tasks for the hybrid learning modality. Hence, this can be a remarkable evidence of respondents' reception of hybrid learning.

Conclusion

In a capsule the study revealed the readiness of the 442 respondents on the full swing face-to-face hybrid learning with significant struggles along adjustments as surfaced on the challenges extracted. Out from the 442 tertiary students, the level of readiness was rated to a great extent with a mean score of 3.64 and SD of .846 which is less dispersed and more reliable in relation to the mean value. In general, this implies that the data gathered is reliable, and thus, the quantitative data from sampling size is representative of the whole population. Different learning modalities should be adopted to encourage better performance from students in accomplishing course requirements. Thinking creatively and innovatively, including making sure that students have the skill they need to achieve in the university specifically digital skills across all disciplines are of great consideration. Education is ever evolving hence, the need to bolster practices through scaffold and management of the facilitation of hybrid learner-centered teaching. Boosting competencies and resources in digitally enhanced teaching and learning among various stakeholders should be the direction. In doing so, pedagogy should be maximized to respond to the emerging needs of learners in a full swing face-to-face modality. Classroom technology and cameras which integrate with the LMS embedded into flipped learning methodology should be maximized to ensure that students come to class prepared, given complete pre-class assessment, engaged in class and capacitated to consolidate their knowledge after class. Video conferencing sessions in the same way that students are physically attending lectures should play the same to those students watching the live-streamed lecture by using the learning management system (LMS) of the university. Lectures should be recorded for students who may wish to re-visit the lecture to make sure that they fully grasp the discussion. How mentors approach and strategize their teaching style and relate to the different theories they use, how they give feedback and the assessment they set are formidable considerations. Creation of hybrid learning environment becomes significant entry point in the teaching- learning process. The live-streaming and recording of classes will be an important requirement for all future and learning models. Maximization of the use of hybrid learning is paramount in the articulation and the implementation of standards along effective pedagogy and learning. Joint productive activity language development, contextualization, challenging activities and instructional conversation are opportunities for bolstering hybrid learning. Establishment of a positive hybrid learning culture and a strong community in the post -pandemic era can be the underpinning stamp of success in any academic endeavor. Hybrid learning should be used to enhance educational experiences. Combination of face-to-face and on-line distance learning can maximize opportunities in providing the four pillars of education along learning to know, learning to do, learning to live with others and learning to be. Moreover, independent learning among students can become a key component for more exploration. Consistency among learners in hybrid modality of learning should be elicited to maintain continuous communication with students.

Indeed, creation of significant difference in students' academic performance is proximate along hybrid learning.

The study revealed the multi-faceted plight of the different stakeholders on the hybrid full-swing face-to-face learning scheme. Inexhaustible challenges were experienced. Some drawbacks encountered indicated the urgent need of the school to provide stable and tested on-line activities to learners who are immersed on academic opportunities. Advanced classroom technology should be substantially provided and upgraded. There should be an equilibrium in terms of bolstering and maximizing the use of live streaming and recording of classes as a requirement for all future and learning models. Proactive collaboration among different stakeholders in the academe should spark inspiration and motivation to foster the development of the culture of hybrid learning as face-to face learning became more attractive for them due to the deprivation they had on pure on-line modality. It can be implied that the challenges and experiences encountered can be resolved with the heightened innovation of the school to support hybrid learning

Significantly, most of the respondents were female freshmen which included fifty percent of 442 contrasted to the 124 junior and 97 sophomore students. Readiness among the students was evident. This reveals that the students' response on hybrid full swing face- to- face is positively attuned with their expectations on the initial implementation of such modality after the two- year on-line scheme of learning. Challenges specifically on adjustments were noted as the crucial reasons that confronted the students. The study arrived at an intervention to bolters the facilitation of learner-centered teaching in the post pandemic era that is aligned with the existing needs of the respondents as well as the other students who sought some challenges on hybrid learning. The scaffolding and managing of the hybrid learning can be achieved to bolster the learning efficaciously. Hybrid learning environment introduces opportunities for educational leaders, teachers and learners in finding alternative approaches to enhance traditional brick and mortar setting. Indeed, there is no single pedagogy and strategy to respond to the emerging needs of diverse learners.

Recommendations

There are challenges which are unprecedented in determining the extent of readiness of the learners transitioning to full swing face-to-face with hybrid learning. Along this, face -to-face learning modality may be more effective among diverse learners but should be at the same time carried out with the applications of hybrid learning. Diagnosis and assessment of the extent of readiness of students should be seriously taken. Inspired pedagogies and methods are made available to aid and assist students in their needs. Interventions should be planned to respond to the psychology of providing learner-centered instruction. Continuing training, seminar, webinar and use of hybrid learning in a holistic fashion should be provided in this post-pandemic era. Continuing intervention and pedagogy to sustain the culture of hybrid learning paves way for more flexible educational model. The maximization of the use of hybrid learning in Higher Education Institutions (HEIs) transcends borders in education.

References

- Abizaid, A., Gabrys, R., Hellemans, K., McQuaid, R., and Patterson, Z. (2020). *For university students, COVID-19 stress creates perfect conditions for mental health crises*. <https://theconversation.com/for-university-studentscovid-19-stress-creates-perfect-conditions-for-mental-health-crisis-149127>
- Afshin, J. Mohammadi, M., Sarvestani, M. S., & Raeisy, L. (2019). Students' Experiences of E-Learning Challenges; a Phenomenological Study. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 10(3),p. 1.https://ijvlms.sums.ac.ir/article_45841_bf6d528b06b2a94c32859036cc4_a3154.pdf
- Alberto, N. R., Baron, M. B., Baticulon, R., Clarion, C., Mabulay, R. E., Reyes, J. C., Rizada, L. G., Sy, J. J., and Tiu, C.J. (2020). *Barriers to online learning in the time of COVID-19: A national survey of medical students in the Philippines*. <https://doi.org/10.1101/2020.07.16.20155747>
- Altug, B., Basay, E., Bolelli, S., Cetin, S., Esen, H., and Ozcan, Y. (2020). *European nations adopting distance learning to keep education afloat amid lockdown and social distancing*. <https://www.aa.com.tr/en/education/unprepared-europe-learns-lessons-of-digital-education/1814764>
- Armstrong-Mensah, E., Ramsey-White, K., Self-Brown, S., and Yankey, B. (2020). COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students. *Front. Public Health* 8:576227. doi: 10.3389/fpubh.2020.576227
- Azazi, N. A., Hussin, N. A., and Selvanathan, M. (2020). *Students learning experiences during COVID-19: Work from home period in Malaysian Higher Learning Institutions*. <https://doi.org/10.1177/0144739420977900>
- Basch, C. H., Davi, N. K., Kecojevic, A., and Sullivan, M. (2020). *The impact of the COVID-19 epidemic on mental health of undergraduate students in New Jersey, cross-sectional study*. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0239696>
- Bliuc A.M., Goodyear P., & Ellis, R.A. (2007). Research focus and methodological choices in studies into students' experiences of hybrid learning in higher education. *Internet High Education*, 10 (4), 231-244.
- Bulusan, F. (2019). *Facilitating Learner-Centered Teaching*. Rex Bookstore Inc. Rex Publishing Company. Sta. Mesa Heights, Quezon City.
- Chiwanza, K., Mapuranga, B., Musingafi, M., and Zebron, S. (2015). Challenges for Open and Distance learning (ODL) Students: Experiences from Students of the Zimbabwe Open University. *Journal of Education and Practice*, 6(18), p. 59. <https://files.eric.ed.gov/fulltext/EJ1079750.pdf>
- Chua, E. R., Miranda, R., Moreno, R., Palmario, G., Sibbaluca, B., and Solon, J. P. (2020). The status of the implementation of the E-learning classroom in selected Higher Education Institutions in Region IV-A amidst the COVID19 crisis. *Journal of Critical Reviews*, 7(11), p. 253. <http://dx.doi.org/10.31838/jcr.07.11.41>

- Dela Cruz, J., Galeon, D. H., & Garcia, P. G. (2019). *E-learning roadmap for open distance learning in Cordillera Administrative Region*. <https://iopscience.iop.org/article/10.1088/1757-899X/482/1/012012>
- Dhawan, S. (2020). *Online Learning: A Panacea in the Time of COVID-19 Crisis*. <https://doi.org/10.1177/0047239520934018>
- Duncan, N. (2022) How to bolster hybrid teaching and learning competencies. University World News.com. University of Pretoria, South Africa. <http://www.universityworldnews>
- Fabito, B., Sarmiento, J., and Trillanes, A. (2021). Barriers and challenges of computing students in an online learning environment: Insights from one private university in the Philippines. *International Journal of Computing Sciences Research*, 5(1), 441-458. doi:10.25147/ijcsr.2017.001.1.51
- Farzi, K, Mohammadipour, F., Toulabi, T., Heidarizadeh, K., & Heydari, F. (2020). The effect of blended learning on the rate of medication administration errors of nurses in medical wards. *Iran Journal of Nursing Midwifery*
- Liu Q, Peng W, Zhang F, Hu R, Li Y, Yan W. (2016). The effectiveness of blended learning in health professions: systematic review and meta-analysis. *Journal of Medical Internet Research*, 18(1), e2.
- ONE Instructor Sandbox. (n.d.). *Correspondence course vs. online course*. <https://ccconlineed.instructure.com/courses/397/pages/correspondencecourse-vs-online-course#>
- Ostendorf, V.A. (1997). *Teaching by television*. Teaching and learning at a distance: what it takes to effectively design, deliver, and evaluate programs. (71), 51-57.
- Okuroglu G.K., & Alpar, E.S. (2022). Effectiveness of diabetes nursing course designed with hybrid learning pedagogy: A pilot study. *Clinical Experimental Health Science* 2022; 12: 507-513. <http://dx.doi.org/10.33808/clinexphealthsci.996865>
- UNESCO (2004). Final report of the meeting of higher education partners (World Conference on Higher Education). Paris: UNESCO.
- Valentine, D. (2002). *Distance learning: Promises, problems, and possibilities*. <https://www.westga.edu/~distance/ojdla/fall53/valentine53.html>
- Villanueva, M. (2020). *DepEd, CHED too distant to learners*. <https://www.philstar.com/opinion/2020/09/09/2041052/dep-ed-ched-toodistant-learners>
- Yang, F., & Yutai, R. (2022). Practice and research of blended learning model guided by deep learning model. *Mathematical Problems in Engineering*, 2022. <http://dx.doi.org/10.1155/2022/8915162>

Farm Mechanization Among Tenant Farmers in Northern Philippines: Implications to Cultural Practices, Gender Roles, Household Food Security and Socioeconomic Status

Samuel B. Damayon*, Pearl Via S. Coballes, Kerwin N. Bayot, Brian M. Baristo, and Rodora P. Tipay

School of Teacher Education and Humanities and School of Accountancy and Business

Saint Mary's University, Bayombong, Nueva Vizcaya, Philippines

*Email : sdamayon@smu.edu.ph

Abstract

Nueva Vizcaya is an agricultural province and could be one of the top rice producers in Region 2, Northern Philippines. The province introduced mechanized farming as part of the government's attempt to improve food security. Most studies on farm mechanization focused on its effect on productivity; this study explored its effect on cultural practices, gender roles, household food security, and socio-economic setup amidst the mechanization of farming materials viz-a-viz tenant farmers' lives using a qualitative design. The study found that there is low mechanization of farming in the province. Tenant farmers engage in small-scale farming that does not guarantee high profits. Gender roles were affected differently as mechanization was utilized. Traditional cultural practices such as *bayanihan* and *ammuyo* were lessened due to mechanization. Intensified government programs were recommended by the farmers to promote progress in farm mechanization.

Keywords : agricultural machinery, landless farming, commercial agriculture, subsistence farming, gender

Introduction

It is not hidden that the Philippines is an agricultural country. The Philippine national hero, Dr. Jose Rizal himself, envisioned the educational system to be focusing on agriculture and trade. Former Senator Pangilinan (2017) expressed that Jose Rizal was aware that science and technology when combined with working together can improve the lives of farmers. However, history tells that the Philippine government could hardly improve its agricultural output. Today, the Philippines is left behind by its ASEAN neighbors in terms of raising agricultural products. Historians have accounted that one failure on the part of farmers of the agricultural industry in the Philippines was the control of land as well as trade by a few rich families. According to Jandoc (2011) speaking about the sugar plantation industry where there is a vast army of unemployed workers and that there was little incentive to invest in more efficient and labor-saving technology. This makes the Philippine plantations inferior to other countries. He cited that Jamaica was already using a sugar processing technology in the 1700s but the Philippines started using it only in the middle of 1890s. These were some of the seen problems that the Philippines had in the past. But it is notable that even our national hero had envisioned the need of technology for our agricultural activities.

A century later, Philippine Agriculture is still in the same situation. In the Philippines, agriculture is an important part of the economy, with crops like rice, coconut, banana, and sugar dominating the production of crops and exports. According to Tacio (2022), the World Bank reported that in the Philippines, the country's workforce as of 2021 from the agricultural sector

comprises about 23% of the total workforce. And agriculture seems not to be moving forward as expected since Filipino farmers do not make farming competitive by the use of machineries. The Philippine Department of Agriculture recognized that to catch up with other countries the use of machineries is inevitable. Irrigation is being developed continuously but production seems not to be improving based from news that the Philippine government is regularly importing rice not only to balance the prices but to make sure that there is enough rice for the lean months of rice production. The Duterte administration has recognized the need for increasing agricultural production but the traditional way of farming has to be replaced.

Emmanuel Pinol (2019), the Secretary of the Department of Agriculture, responding to problems on rice production expressed that rice farming must be continued and pursued despite many challenges. He further stressed that with the rate of 1.7% growth rate of Philippine population with the increased in population also in the neighboring countries, there will be not enough rice in 5 to 10 years from now. Thus, he concludes that abandoning rice farming is also abandoning, for the next generation, food security. This is why during the beginning of the Duterte administration, to achieve food sufficiency and maximum productivity in the country, the Department of Agriculture had intensified technology updating and sharing, modernization, and mechanization. One of the major developmental moves by the Department of Agriculture is to adapt the mechanization of farming in the Philippines to be at par or even more than its ASEAN neighbors in agricultural production, particularly rice.

According to Tacio (2022) the use of machines is very promising. It eases farming, it makes farming faster with better results compared with traditional farming. Farm machineries can offer a combination of processes like harvesting and threshing which make farming less tedious. It could even provide a business venture of providing farm machineries services. Furthermore, a complete mechanized farming system can achieve higher production among farmers which could lead to national food security. And he claimed further that machines can significantly change the future of farming in the country. This is why the Department of Agriculture aims to maintain food security with farm mechanization and infrastructure investments as its core programs (Department of Agriculture, 2016).

However, it is not also hidden that many of our tenant farmers are much connected and dependent on traditional farming. Their connection and dependence can be seen in songs like *magtanim ay di biro* (planting rice is not a joke), their socio-economic activities like *ammuyo*, a source of livelihood, a source of household food security, and the manifestation of gender sensitivity. The introduction of technology, particularly the introduction of farm machinery, affected the lives of our tenant farmers. This study aimed to look into the lives of people who are considered the last, the least, and the lowly in the society. Most studies on the mechanization of farming focused on its impact on production, not so much on its effect on tenant farmers whose family subsistence depends so much on traditional farming. Verma (2006) defined agricultural mechanization as the “use of various power sources and improved farm tools and equipment, to reduce the drudgery of human beings and draught animals, enhance the cropping intensity, precision and timelines of efficiency of utilization of various crop inputs and reduce the losses at different stages of crop production. The end objective of farm mechanization is to enhance overall productivity and production with the lowest cost of production.” From this definition of farm mechanization, it implies the reduction of manpower and the use of the beast of burden in farming. It would further imply that those who can afford to have the machineries are the ones who will benefit from the program. While mechanization of farming may lead to increased

production, the effect of mechanization may differ from country to country, especially from advanced countries in relation to developing countries.

According to Emami et al. (2018), “mechanization is a multi-dimensional concept and widely used in agriculture. There is, however, a major difference between the application of mechanization in developed and developing countries. The developing countries tend to design their own strategies in food security given the challenges they face in all aspects of their economy including feeding a growing population, reducing poverty, protecting the environment, managing the effects of climate change and fighting malnutrition.” The goal of the strategies, with the help of appropriate technologies, is to lead to sustainable agricultural development and, ultimately, food security. Thus, for developing countries, unlike more advanced countries, mechanization is pursued for the sake of food security at the expense of some other factors like human labor, gender roles and even the mechanization’s effect into the socio-cultural life and household food security of tenant farmers.

Studies have shown that changes in agricultural practice may have an effect on gender roles and household food security. In the study of Gurung et al. (2016), farm mechanization in aquaculture increased both farm income and income inequality, brought in new sources of employment, changed gender roles and relations, altered women’s access to and control of resources, altered household food consumption patterns, and increased market dependence for staple food. Commercial aquaculture not only decreased the workload of women but also weakened their access to and control over agricultural products. Women became more dependent on the husband’s income and had lesser control over its use. Farm mechanization reduces women farmer’s drudgery and diversification of rice monoculture toward rice-based high-value crops.” Mechanization of farming has itself an effect on gender roles and income which may affect household food security among tenant farmers in this developing country.

There is a scant of references to studies on the effect or impact of farming mechanization in the Philippines. This could be due to the fact the Philippines has only recently started a full-blown farm mechanization through the introduction of farm machineries. However, there are more references from other countries since they are far ahead in applying technology and machinery in farming.

In South Africa, for example, what is being pushed is the concept of Sustainable Agricultural Practices (SAP). Just like the Philippines, South Africa may also be considered as a developing country in terms of its agriculture due to its geographical location where poor farmers are dependent on “sensitive rainfed agriculture” (Makate et al., 2017). But what is Sustainable Agricultural Practices? It is defined as “those practices enabling farmers to meet current and future societal needs for food, fibre, ecosystem services, and healthy lives. Farmers achieve these goals by maximizing the net benefits to society when all costs and benefits (economic, social and environmental) of the practices are considered (Tilman et al. 2002). What are the components of Sustainable Agricultural Practices (SAP)? For farmers, SAPs may include various soil, land, and water conservation practices, including integrated soil fertility management (ISFM) (Vanlauwe et al., 2010). These sustainable agricultural practices include crop rotation, conservation tillage, residue retention, organic inputs, improved crop varieties, complementary use of fertilizers, rainwater harvesting, irrigation, agroforestry, and soil and stone bunds for soil and water conservation (Branca et al., 2011).

The above approach to farming is far different from the mechanization of farming using technological advancement. In the Philippines, David (1995) explained that agriculture covers at

least 20% of the total workforce where the poor usually belongs. Newly elected president Ferdinand Marcos Jr in his inaugural message on June 30, 2022 has noted that the country's agriculture sector "cries for urgent attention" after years of neglect and misdirection. And in July 25, 2022 during his 1st State of the Nation address he maintained that the agricultural sector remains to be one of the push factors for growth and development (DA Website, 2022). The Philippine government is really serious about its mechanization and other modernization programs of farming. The government expects that with modernization, there will be more jobs for farmers and food on the table. Among tenant farmers, is the promise of a better life realizable? Will tenant farmers be secured in terms of their household food security? According to Coleman-Jensen et al. (2019), "food insecurity means that households were, at times, unable to acquire adequate food for one or more household members because they had insufficient money and other resources for food. A majority of food-insecure households—those classified as having low food security (but not very low food security)—avoided substantial reductions or disruptions in food intake, in some cases by relying on a few basic foods and reducing variety in their diets. Very low food security means that households were food insecure to the extent that eating patterns of one or more household members were disrupted and their food intake reduced, at least some time during the year, because they could not afford enough food."

But with the introduction of farm machineries and emergence of different farm technologies, employment may have been affected especially among tenant farmers who are being replaced by farm machineries. Such a situation may have a further effect on gender roles, household food security, and even on the socio-cultural lives of tenant farmers. Farm mechanization may have increased productivity and has been advantageous to those who have access to farm machinery but may not be on small scale and more so to tenant farmers. Thus, this research was undertaken to determine the effect of farm mechanization among tenant farmers in Nueva Vizcaya, Philippines to 1) describe the socio-demographic profile of the participants; 2) determine how farm mechanization started in selected towns of Nueva Vizcaya; 3) determine the effects of farm mechanization on a) Gender roles, b) Household food security, c) Socioeconomic status, and d) cultural practices of tenant farmers; 4) Determine the participants' reaction to the mechanization of farming by the government; and to Recommend possible Interventions if needed.

Theoretical Framework

Actor Network Theory will be used as the theoretical framework of the study. This theory was first introduced in the 1980's by Latour et al. to do away with essentialism or naturalism that treats the subject or the actor always from the human perspective. Actor Network Theory (ANT) is a "conceptual frame for exploring collective sociotechnical processes, whose spokespersons have paid particular attention to science and technologic activity. ANT privileges neither natural (realism) nor cultural (social constructivism) accounts of scientific production, asserting instead that science is a process of heterogeneous engineering in which the social, technical, conceptual, and textual are puzzled together (or juxtaposed) and transformed (or translated) (Crawford, 2004). Actor Network Theory has two variables which are non-human (farm machineries) and human (Agricultural land workers) which by mechanization may gain a new name. This theory explains the network or causal relation between science and technological development (non-human) and human beings. In short, technological advancement may affect human situatedness due to its network with technology. This theory would further explain that with the interaction or

network between science and technology and human beings comes something to the fore – the new production of sociotechnical processes.

Furthermore, Bencherki (2018) explains that the concept from Actor Network Theory that organizational communication has put to the greatest use is that of the non-human agency. This has been done through an acknowledgment of the role of technology in organizational settings, but also through a broader recognition, that agency is not limited to human beings, but is shared with, among others, documents and numbers. Furthermore, he claims that “more recently scholars have recognized actor-network theory as a candidate theory to account for technological change and its contribution to the constitution of organizations, as well as the role in coordination practices of technology’s and humans’ shared agency. In other words, Actor Network Theory allows accounting for the way the heterogeneity of information technology grants its homogeneity to organizations.”

Methodology

Design

This study used a phenomenological qualitative design. Donalek (2004) explained that phenomenological studies examine lived experiences through the descriptions provided by the people involved. This type of research is used to study areas in which there is little knowledge. In phenomenological research, respondents are asked to describe their experiences as they perceive them. They may write about their experiences, but the information is generally obtained through interviews. To understand the lived experience from the vantage point of the subject, the researcher must consider her or his own beliefs and feelings. The researcher must first identify what she or he expects to discover and then deliberately put aside these ideas; this process is called bracketing. Only when the researcher puts aside her or his own ideas about the phenomenon is it possible to see the experience from the eyes of the person who has lived the experience (Qualitative Research Designs, 2005).

Research Locale

The study was conducted in four agricultural towns of Nueva Vizcaya, particularly Bagabag, Bayombong, Solano, and Villaverde. These are considered agricultural centers in the province because of their substantially higher degree of rice production than other towns. The following specific *barangays* were selected because of observed farm mechanization processes in these areas: *Barangays* Tuao North & Brgy. Tuao South in Bagabag; *Barangays* Magapuy and Paitan, Bayombong; *Barangays* PD Galima and Wacal, Solano, and Poblacion, Villaverde.

Participants

The study’s participants are 129 tenant farmers in the agricultural centers of Nueva Vizcaya. The sample represents 42.72% of the population of tenant farmers in the sampled towns. The farmers do not own the land they are cultivating and are either in a tenancy agreement with the land owner or cultivating the land with permission from the land owner. All of the participants engage in small-scale farming, cultivating one to two hectares of rice farmland. To be considered as a participant, the farmer should have declared that their main source of family income is farming. Participants were identified with the help of the Department of Agrarian Reform. Table 1 shows the percent distribution by *barangay*.

Table 1 *Frequent and percent distribution by barangay*

Barangay	Frequency	Percent by Total Sample	Percent based on Population	Population of Tenant Farmers*
Tuao North	21	16.28	37.50	56
Tuao South	24	18.60	33.33	72
Villaverde	43	33.33	64.18	67
Wacal	9	6.98	47.37	19
PD Galima	9	6.98	33.33	27
Magapuy	8	6.20	38.10	21
Paitan	15	11.63	14.02	107
Total	129	100	42.72	302

*Source: Department of Agrarian Reform (2023)

Instrument

This study used a researcher-made interview guide that elicited the data needed for the research. The researcher-made interview guide helped the research team in making phenomenological observations that may add more to the information gathered through the in-depth semi-structured interview.

Data Gathering Procedures

The research team communicated to the different Municipal or Barangay LGUS on the purpose and conduct of the research and then coordinate with the same Municipal LGUs or the Barangay LGUs for the identification of participants. Once the participants were already identified, we schedule a visit to their homes and explain to them the purpose of the study. Once they are informed, the research team would ask if they would like to participate in the study. Participants who are willing to participate in the study will be provided the informed consent form for their signature after a thorough explanation of the content of the form. After getting their consent, the research team will schedule an in-depth semi-structured interview during the most convenient time for the participants. Once the interview of all participants is completed, the data will be encoded, decoded, coded, and qualitatively analyzed using thematic analysis.

The interviews were conducted in seven focus groups between January and February 2023.

Treatment of Data

The qualitative data gathered was subjected to thematic analysis. According to Caulfield (2022), **thematic analysis** is a method of analyzing qualitative data. It is usually applied to a set of texts, such as an interview or transcripts. Using this method, the researchers examined common themes – topics, ideas, and patterns of meaning - that came up repeatedly. There are various approaches to conducting thematic analysis, but the most common form follows a six-step process: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing up.

After encoding the data, the research team generated initial codes then generated themes. The themes that were formulated from the data were interpreted further using the observations of the research team.

Ethical Consideration

The study was submitted for ethics review to Saint Mary's University Research Ethics Board (SMUREB) with the following address and contact information: A218, Second Floor, Fr. Godfrey Lambrecht Building; SMU Main Campus, Ponce Street, Don Mariano Marcos, Bayombong, 3700 Nueva Vizcaya, Philippines with an email: reb@smu.edu.ph and cellphone number: 09177053041.

Conflict of Interest

There is no conflict of interest and the research team does not intend to gain anything from the study. It is only intended for research purposes and for the benefit of the tenant farmers and other public or private agencies or institutions.

Confidentiality and Data Protection

The researchers themselves retrieved the collected data through in-depth semi-structured interviews in seven focus groups. All the data gathered were held with utmost confidentiality and privacy. Furthermore, the research team ensured that the respondents' identities are anonymized by providing number codes instead of their names. All data gathered remained private, accessible only to the researchers.

Management of Vulnerability

To manage participants' vulnerability, they were informed that they can withdraw from the research at any time without consequence. They were further orientated that their participation is voluntary and they may withdraw anytime through the duration of the study.

Risk/Benefit Ratio

There are no known risks associated with participating in this study. On the chance that the participants will look for additional information about the study, the research team offered them the significance of the study. The research team clarified the meaning of the study's findings, regardless of whether the hypotheses are approved or no. Furthermore, at whatever point they decide to demand a copy of the finding's summary, the research team can give them a copy of the synopsis through personal delivery. Additionally, a copy of the results of the study shall be given to the corresponding local government unit (LGU) and other government agencies like the Department of Agriculture or the *Lingkod Maria* Community Development and Advocacy Center (LMCDAC) for any further courses of action when needed.

Informed Consent

The research team selected participants and started data gathering after getting approval from the university's Research Ethics Board. The consent form, together with the semi-structured interview guide, were given personally to the participants as face-to-face encounter are now allowed under the basic health protocol during the pandemic. The research team explained the Informed Consent form, and once the respondents agreed to participate, the respondent was asked to sign the informed consent.

Terms of Reference

The intellectual property of the study results is owned by the research team, but copies of the completed research study will be deposited with the University. No insurance was involved in this study.

Results and Discussions

This section presents the participants' sociodemographic profiles and the findings based on focus group discussions that explored the effects of mechanization on gender roles, household food security, socioeconomic status, and cultural practices.

Section 1: Sociodemographic Profile of Tenant Farmers

Table 2 Participant Profile by Sex and Age

Barangay	Age Range	Male			Female			Total	
		f	% by sex	% by total	f	% by sex	% by total	f	%
Magapuy	40-60	4	4.9	3.10	4	8.51	3.10	8	6.20
Paitan	25-55	9	11.0	6.98	6	12.77	4.65	15	11.63
PD Galima	31-59	8	9.8	6.20	1	2.13	0.78	9	6.98
Wacal	30-64	7	8.5	5.43	2	4.26	1.55	9	6.98
Tuao North	25-55	14	17.1	10.85	7	14.89	5.43	21	16.28
Tuao South	30-55	15	18.3	11.63	9	19.15	6.98	24	18.60
Villaverde	20-60	25	30.5	19.38	18	38.30	13.95	43	33.33
Total	20-64	82	100	63.57	47	100.00	36.43	129	100

The table above indicates that most of the participants are from Villaverde (33%), Tuao South (18.6%), and Tuao North (16.28%). There is a greater number of participants who are male (63.57%) than female. According to the Philippine Statistics Authority (2020), there is a greater number of males employed in the agriculture sector than in other industries, with statistics in Cagayan Valley being the second highest in the country (512,000), thus supporting the above findings. The age range of the participants is 20 to 64 years old, with the youngest from Brgy. Villaverde and the eldest from Brgy. Wacal. The diversity in age groups shows that farming is passed on from generation to generation, with some confirming that they took over farming tasks from their parents, a continuation of a family tradition, or were engaged in through marriage.

Several participants were single, and do not have tertiary education. They also mostly originate from the region where they currently live, and have years of experience in farming. When asked when mechanization began in their municipalities, some said as early as the 1970s. The farm holdings based on tenancy are between one to two hectares. This is lower than the average area of farms, which is 4805 hectares, based on a 2022 PSA survey. Huo et al. (2022) argued that having lower agricultural land holdings suggest less intense rice production and lower income.

Section 2: How Farm Mechanization Started in Nueva Vizcaya

Farm mechanization in Nueva Vizcaya began as early as the 1970s, with hand tractors and plow pulled by carabaos, as the popular machinery. Eventually, reaper, rotovator, grass cutters, and even planters were introduced but mostly, according to the participants, these were rented from other places. On average, the length of time that the participants had been using

machinery for farming was between 23-65 years. This is an extensive amount of time since mechanization was introduced, but there remains to be a lack of sustained growth in agriculture. Various factors account for this situation. One factor is the declining performance of the country's national irrigation system (NIS), which has been a persistent problem for over 20 years (Agriculture Monthly, 2015). An assessment of Philippine irrigation by Briones (2021) highlighted that the government has addressed this concern over three administrations. A reviving irrigation development program is put in place to do water resource assessment and explore issues in governance and needed policy changes. Other factors include small farmlands that lead to lower productivity, and a declining number of farm laborers (Briones, 2021).

Section 3: Effects of Farm Mechanization on Gender Roles, Household Food Security, Socioeconomic Status, and Cultural Practices

This section explores the changes that occurred among tenant farmers as a result of farm mechanization. It compares practices before and after mechanization and provides insight into how mechanization affected gender roles, household food security, socioeconomic status, and cultural practices.

Mechanization, Household Food Security, and Socioeconomic Status

Tenant farmers in this study were one to say that farming is tiring. With the many processes involved in rice production, the International Labour Organization (2023) stated that farming, or any agricultural work, for that matter, is, by nature, physically demanding. With the introduction of mechanized farming, farmers felt relieved of heavy and exhausting labor. More tasks were completed in less time and with fewer physical exertions. Finances were also reduced because they had to pay and feed fewer laborers. Several farmers explained that they were deep in debt before, but now, they can feel some financial relief with mechanized farming. However, a major drawback to mechanized farming, according to the participants, is that food crops were no longer given for free. Apart from rice, many farmers also grow fruits and vegetables for household consumption, oftentimes sharing their yield with neighbors or community members. Nowadays, farmers are less generous; some even report those who get their crops without permission to the local government units.

Many farmers also complained that farm inputs have become expensive such that their net profit remains low even when their yield was what they expected. This is due to tenant farmers giving their landowners a share as part of the lease agreement and paying rental fees for machinery and other expenses. Also, mechanization entails capital investments which most tenant farmers of small landholdings cannot afford. Galang (as cited in Briones, 2021) stated that there are about 62% of small farmers who incur debt from formal sources to purchase capital investments for farming; the rest decide not to borrow money because of the voluminous requirements in securing a bank loan. Eventually, some resort to self-financing their mechanization process. Because crop yield depends on the weather, there was still no assurance of high profit per harvest. These factors led the participants to feel and say that they preferred the previous form of farming. According to the participants, before mechanization was introduced by the government to their communities, they had several side jobs related to farming (*pa-extra-extra*), allowing them to send their children to school and put food on the table. Nowadays, many agree that they can barely feel the increase in profit because with mechanization and increased productivity came increased expenses, prices of basic commodities, and wages for laborers. This can be partly explained by the observation that rice is more expensive in the Philippines than in

most developing countries of Asia (Balisacan et al., 2003). This leads to lowered purchasing power among the poor, including landless farmers whose spending on rice reaches about 22% of their total household expenditure.

Since most of the farmers were engaged in small-scale farming, there was barely a change in their socioeconomic status even when they shifted to mechanized farming. This can be explained by that fact that most of the participants were holding one to two hectares only, considered as small-scale farming. Another explanation is possibly the middleman's presence in rice wholesale. Tenant farmers sometimes cannot be as profitable as they want because there are layers of marketing agents in the Philippines who buy their rice cheaply and then sell it at a higher price (Philippine Rice Research Institute, 2016). It appears that farm mechanization led to increased productivity and crop yields, but it cannot be concluded that it led to an increase in net profit and socioeconomic status among tenant farmers. Tacio (2022) confirmed this in an article for the Philippine Center for Postharvest Development and Mechanization, stating that the Philippines remains to be at a low-mechanization level. This was due to farmers' low buying power, small landholdings, high costs of machinery, and government policies that did not support the mechanization of agriculture. These suggest that farmers are not getting the most profit from mechanization.

A common sentiment among the participants is the changing norm in lease agreements that puts the tenant at a disadvantage. Previously, *tertiahan* was practiced, enabling the tenant to receive proportionate profits and consider extraordinary circumstances, such as crop damage by natural disasters. Nowadays, the agricultural land lease is typically more advantageous to the landlord, such as having a fixed number of rice cavan for the landlord regardless of the amount of harvest.

Mechanization and its Effect on Cultural Practices

In Nueva Vizcaya, the practice that is slowly fading due to farm mechanization is *ammuyo*. In this practice, non-family members unite to help each other during harvest season. Typically they are not paid, but when they are, it is in a meager amount or in kind. According to the participants, *ammuyo* is slowly disappearing due to mechanization. For instance, one participant said that in the past, when they were still using traditional farming, neighbors who discovered that they will be planting or harvesting rice would immediately say that they would come and help. The job would be completed faster since several people were helping. Nowadays, with farm mechanization, farmers do not help each other; rather, they conduct their farming activities independently of each other.

Also, previously, harvesting was done in succession, in which one would harvest this week, and the farmers would help out. Then next week, another farmer harvests, and the previous one who harvested would also help. This unique Filipino practice is rooted in *utang na loob* and *pakikisama*. *Utang na loob*, translated as a debt of goodwill, is a sense of obligation to repay a favor. It involves a deeply personal and internal element of shared self (Gundran et al., 2022). The other possible Filipino values lost as a result of mechanized farming are *malasakit* (solicitude), *pagdadamayan* (systematic support), *pakikipagkapwa-tao* (authentic interpersonal relationship). It would appear, therefore, that while mechanization led to more productivity, it gave fewer opportunities for the tenants to be more communal and practice *bayanihan* (helping others without expecting rewards).

Mechanization and Gender Roles

Adopting mechanized farming definitely lowered labor costs for farmers since workers are replaced by machines. But this was disadvantageous to tenant farmers who work part-time as laborers. According to the participants, losing jobs due to farm mechanization led female farmers to become vendors, laundry women, and household helpers. Among women farmers, mechanization forced them to diversify their workforce participation – that is, to discover jobs that are non-rice farm-related and are less labor-intensive to help provide food for the family. Several also began subsistence farming for household consumption. According to the Food and Agriculture Organization of the United Nations (2023), women play a critical role in many farming communities, and in some countries, the total farm labor is done by women. However, women experience significant discrimination regarding land ownership, equal pay, access to credit and financial services, and participation in decision-making (Food & Agriculture Organization/FAO in the United Nations, 2023). Given women’s critical role in farming, it is important to address this discrimination and enable women to participate more capably now that farming has become mechanized. The FAO (2023) recommends providing women with entrepreneurial and business planning skills to promote their independence and earning capabilities.

Conversely, men who lost their side jobs due to mechanization turned to construction, gardening, and left the province for farming job opportunities. Some found jobs that were still farm-related (e.g. fishpond) and labor-intensive jobs (i.e. construction). It must be noted that for both genders, most jobs they find are manual, below minimum wage, and paid on a work-for-pay basis. Alternative jobs found by landless farmers due to farm mechanization do not substantially contribute to household food security.

Section 4: Reactions to Farm Mechanization

Tenant farmers’ reactions to farm mechanization were generally positive, highlighting how it led to ease in farming and faster operations. They are aware of the benefits that mechanization can provide but are limited in resources (financial and technical) to mechanize their farm holdings fully to maximize returns. Some farmers said they had to borrow money to sustain their activities and were left with little net profit after harvesting. Farmers with young children explained that profit was good enough to provide food for the family, but not enough to support children’s educational needs. The participants who are members of farmers’ associations felt that the government can contribute more to improving the current farming mechanization efforts. Several suggested providing more free fertilizer for farmers and medium- to large-scale machinery for cooperatives/associations. There appears to be a general sentiment that openness to long-term mechanized farming is dependent on how well they will be supported by the government to sustain this form of farming. Sustainable mechanization is indeed critical since it can reduce poverty, lead to food security, and improve farmers’ livelihoods (Food and Agriculture Organization of the United Nations, 2023).

Section 5: Recommended Interventions

While participants have accepting views towards mechanization, they are aware that there remains to be a low implementation of mechanized farming in their communities. When asked how the government can help improve this situation, they quickly shared the following interventions:

Improve irrigation system

Infrastructure is vital for the efficient implementation of farm mechanization. Several farmers mentioned the difficulty in mechanized farming since some farmlands are not yet fully irrigated or stable in water supply leading to dry soil. Those with irrigation complain of water leaks from the rice field, or the absence and lack of levees to contain, control, or divert the water flow. This signifies that the lands of the farmers of this study currently have a poor irrigation system.

This observation of poor irrigation systems is not new. An article in Development Research News (2015) indicated that these problems are persistent, occurring as early as the 1980s, and continuing 20 years later. Clemente et al. (2019) found that the Philippine national irrigation systems (NIS) are inefficient and cited issues like siltation, flooding, deterioration of canals, and salinity problems that threaten crop production and yield. Irrigation is critical to any agricultural system since it raises land productivity and stability despite severe weather conditions. For farmers to maximize the economic benefits of farm mechanization, it is therefore important that NIS facilities be created or rehabilitated.

Increase agricultural subsidies

Several participants felt financially constrained by the cost of farm inputs for mechanization. Some wished for more free fertilizer (*abono*) to augment their net profits. Through the Department of Agriculture (DA), the Philippine government provided free seeds and fertilizer starting the 2020 wet cropping season to boost rice production. However, participants of this study who availed of these free farm products felt that these were not enough.

Apart from free farm inputs, farmers also wanted subsidized machinery to be given to their cooperatives/associations. There were some municipalities that were provided with subsidies, but some farmers had to travel far to avail of this cooperative-based machinery. As of March 2022, the Philippine Center for Postharvest Development and Mechanization (PhilMech) has acquired 19,542 machinery and distributed 16,167 so far as part of the government's intensified mechanization program. Gomez (2022) reported that the PhilMech urges farmers to join farmer cooperatives and associations (FCAs) since these are the program's primary beneficiaries. By joining FCAs, farmers can utilize machinery with lower rental fees, but many farmers complain that the fees are the same as privately-owned ones, possibly explaining why some farmers are not urgently joining FCAs.

The above recommendations culled directly from the participants are critical inputs on how the government can improve the farming culture in the Philippines. Huo et al. (2022) support these when they said that government should make policies that encourage or provide targeted subsidies for agricultural machinery, among others.

Conclusions

Tenant farmers of agricultural towns in Nueva Vizcaya engage in small-scale farming that does not ensure increased rice productivity, agricultural profit, or a change in socioeconomic status. While mechanization remained low, it affected gender differently, with women's participation leaning toward less labor-intensive tasks, while men continued to engage in farm-related and labor-intensive activities. A major effect of mechanization was the decreased and slowly disappearing tradition of mutual cooperation (*bayanihan* and *ammuyo*) during planting and harvest times. Mechanization has been practiced for more than five decades. Still, existing

farming conditions, such as poor irrigation, inadequate government subsidy, and small farm landholdings, hinder the positive impacts on farming culture, productivity, and profit. Tenant farmers clamor for greater government support to improve mechanized farming and allow farmers to earn more money on what they produce.

Recommendations

Mechanization remains to be low in the agricultural towns of Nueva Vizcaya. With this, it is recommended that a needs assessment be conducted to explore farmers' urgent needs given their current farming conditions. Part of this exploration might be in relation to understanding why farmers are hesitant to join farmers' associations, and what conditions or benefits they would like to be given to increase their intent to join. Furthermore, since some lost their part-time farming jobs, it is useful to introduce them to other sources of livelihood. Participants may be referred to government and non-government organizations offering livelihood training to promote food security. There is much more to be done to improve the lives of tenant farmers. Schools can organize livelihood training for farmers and provide them with linkage or networking opportunities. The government is urged to increase and provide financial subsidies for machine purchase, operations, and training. Further research is encouraged to explore how to make small-scale farming more sustainable amidst the current challenges of the tenant farmers.

References

- Ahmad, L. & Mahdi, S. S. (2018). Introduction to Precision Farming. *Satellite Farming*, https://doi.org/10.1007/978-3-030-03448-1_1.
- Agriculture Monthly (2015). Philippine Agriculture Saddled By Poor Irrigation Systems. <https://www.agriculture.com.ph/2018/02/12/philippine-agriculture-saddled-by-poor-irrigation-systems/>
- Al-Ali, A.R., Al Nabulsi, A., Mukhopadhyay, S., Awal, M. S., Fernandes, S. & Ailabouni, K. (2019) IoT-solar energy powered smart farm irrigation system. *Journal of Electronic Science and Technology*, 17 (4) <https://doi.org/10.1016/j.jnlest.2020.100017>
- Banu, S. (2015). Precision agriculture: Tomorrow's technology for today's farmer. *Journal of Food Processing & Technology*, 6, 468. <https://doi.org/10.4172/2157-7110.1000468>.
- Bencherki, N. (2018). Actor Network Theory. *The International Encyclopedia of Organizational Communication*. New York, Wiley. <http://doi.org/10.1002/9781118955567.wbieco002>
- Bizimanaa, J. & Richardson, J. W. (2018). Agricultural technology assessment for smallholder farms: An analysis using a farm simulation model (FARMSIM). *Computers and Electronics in Agriculture*, 156 (2019) 406–425, 0168-1699
- Bordey F. H, Moya P. F., Beltran, J. C., Dawe DC, editors. 2016. Competitiveness of Philippine Rice in Asia. Science City of Muñoz (Philippines): Philippine Rice Research Institute and Manila (Philippines): International Rice Research Institute. 172 p. ISBN: 9786218022140
- Balisacan, A. M., & Ravago, M. V. (2003) The rice problem in the Philippines: trends, constraints, and policy imperatives. https://mpra.ub.uni-muenchen.de/24865/1/MPRA_paper_24865.pdf

- Branca, G., McCarthy, N., Lipper, L. & Jolejole, M. C. (2011). Climate-smart Agriculture: A Synthesis of Empirical Evidence of Food Security and Mitigation Benefits from Improved Cropland Management. *Mitigation of Climate Change in Agriculture Series*, 3: 1-42.
- Briones, R. M. (2021) *Revitalizing Philippine Irrigation: A Systems and Governance Assessment for the 21st Century*. Philippine Institute for Development Studies. <http://hdl.handle.net/11540/13078>.
- Calibuso, N., Estigoy, M. A. & Vargas, D. (2021). Effects of the emergence of farm machineries to socio-economic status of agricultural land workers in the Philippines. Social Science eSearch Network. <https://ssrn.com/abstract=3795373>
- Clapp, J. & Ruder, S (2020). Precision Technologies for Agriculture: Digital Farming, Gene-Edited Crops, and the Politics of Sustainability. *Global Environmental Politics* 20:3, August 2020, https://doi.org/10.1162/glep_a_00566 © 2020 by the Massachusetts Institute of Technology.
- Caulfield, J. (2022). How to Do Thematic Analysis | Step-by-Step Guide & Examples. <https://www.scribbr.com/methodology/thematic-analysis/>
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A. & Singh, A. (2019). Household Food Security in the United States in 2018, ERR-270, U.S. Department of Agriculture, *Economic Research Service*.
- Clemente, R. S., Fajardo, A. L., Ballaran, V. G., Jr., & Ureta J. P. (2019). Evaluation of National Irrigation Systems in the Philippines. Philippine Institute for Development Studies. [https://serp-p.pids.gov.ph/publication/public/view?slug=evaluation-of-national-irrigation-systems-in-the-philippines#:~:text=National%20irrigation%20systems%20\(NIS\)%20are,sufficiency%20program%20of%20the%20government](https://serp-p.pids.gov.ph/publication/public/view?slug=evaluation-of-national-irrigation-systems-in-the-philippines#:~:text=National%20irrigation%20systems%20(NIS)%20are,sufficiency%20program%20of%20the%20government).
- Crawford, C. (2004). Actor Network Theory. Retrieved from [https://www.sagepub.com/sites/default/files/upm-binaries/5222_Ritzer_Entries_beginning_with_A_\[1\].pdf](https://www.sagepub.com/sites/default/files/upm-binaries/5222_Ritzer_Entries_beginning_with_A_[1].pdf)
- Department of Agriculture (2022). The Secretary in action. Department of Agriculture. <http://www.da.gov.ph>
- Department of Agriculture (2016). Farm Mechanization and Infrastructure Investments. <https://www.da.gov.ph/foundation/farm-mechanization-and-infrastructure-investments/>
- Donalek, J. G. (2004). Demystifying nursing research: Phenomenology as a qualitative research method. *Urologic Nursing*, 24, 516–517.
- Emami, M., Almassi, M., Bakhoda, H. *et al.* Agricultural mechanization, a key to food security in developing countries: strategy formulating for Iran. *Agric & Food Secur* 7, 24 (2018). <https://doi.org/10.1186/s40066-018-0176-2>
- Gomez, E. J. (2022). *DA boosts nationwide farm mechanisation program*. The Manila Times. https://www.manilatimes.net/2022/03/17/business/agribusiness/da-boosts-nationwide-farm-mechanization-program/1836490?fbclid=IwAR1Vd5UuqeP2LuQCS92hhbc4stq--33d_1DwrzwAwhGFmd77FIkjIj2k84

- Gundran, A. P., Manalo, J. J., Soriano, P. S., Cagsawa, R. O. & Manguiat, G. C. (2022). The Concept of Utang na Loob in in the Philippines. *Antorcha*, 8(1).
- Gurung, K., Humnath, B. & Paris. T. (2016). Transformation from Rice Farming to Commercial Aquaculture in Bangladesh: Implications for Gender, Food Security, and Livelihood. *Gender, Technology and Development*, 20(1) 49–80. DOI: 10.1177/0971852415618747
- Hamilton, S. F., Richards, T. J., Shafran, A. P., & Vasilaky, K. N. (2021) Farm labor productivity and the impact of mechanisation. *American Journal of Agricultural Economics*, 104 (4), 1435-1459. <https://doi.org/10.1111/ajae.12273>
- Huo, Y., Ye, S., Wu, Z., Zhang, F. & Mi, G. (2022) Barriers to the Development of Agricultural Mechanization in the North and Northeast China Plains: A Farmer Survey. *Agriculture* 2022, 12, 287. <https://doi.org/10.3390/agriculture12020287>
- International Labour Organization (2023). *Agriculture: a hazardous work*. https://www.ilo.org/safework/areasofwork/hazardous-work/WCMS_110188/lang--en/index.htm#:~:text=Much%20agricultural%20work%20is%2C%20by,in%20remote%20and%20rural%20communities
- Jandoc, K. R. (2011). La Liga Filipina: Rizal and institutional change. *The Philippine Review of Economics*, 48 (2) 151-182.
- Makate, C., Makate, M. & Mango, N. (2017) Sustainable agriculture practices and livelihoods in pro-poor smallholder farming systems in southern Africa. *African Journal of Science, Technology, Innovation and Development*, 9:3, 269-279. DOI: 10.1080/20421338.2017.132235
- Marcos, F. (2022). On Agriculture. Retrieved from <https://www.da.gov.ph/> (August 29, 2022).
- Pangilinan, K. (2017). Sen. Kiko remembers Rizal as a farmer. https://www.legacy.senate.gov.ph/press_release/2017/1230_pangilinan1.asp.
- Pinol, E. (2016). Philippine Agriculture today and the future. https://www.da.gov.ph/wp-content/uploads/2016/12/The_Philippine_Agriculture_Today_and_the_Future.pdf.
- Pinol, E. (2019). Statement of DA Secretary on Rice Liberalization, Tariffication. Retrieved from <https://www.da.gov.ph/statement-of-da-secretary-manny-pinol-on-rice-liberalization-tariffication/>.
- Philippine Statistics Authority (2022). *2022 Selected Statistics on Agriculture and Fisheries*. Available at https://psa.gov.ph/sites/default/files/%28ons-cleared%29_SSAF%202022%20as%20of%2030082022_ONS-signed.pdf
- Philippine Statistics Authority (2020). Employment and Wages in the Agriculture Sector. *Agricultural Indicators System*. ISSN-2012-0435
- Qualitative Research Designs (2005). https://yuli-elearning.com/pluginfile.php/4833/mod_resource/content/1/2.%20qualitative%20research%20design.pdf
- Tacio, H. (2022). Why today's farmers need to mechanize. https://www.philmech.gov.ph/?page=story_full_view&action=story_fullview&recordID=202282484053AMa6f3cd&recordCategory=RCEF

- Vanlauwe, B., Bationo, A. Chianu, J., Giller, K. E., Merckx, Mokwunye, R. U. , Ohiokpehai, O., Pypers, P., Tabo, R. and Shepherd. K. D. (2010) “Integrated Soil Fertility Management Operational Definition and Consequences for Implementation and Dissemination.” *Outlook on Agriculture*, 39 (1): 17–24.
- Verma, S. R. (2006). Impact of Agricultural Mechanization on Production, Productivity, Cropping Intensity Income Generation and Employment of Labour. Retrieved from https://www.researchgate.net/publication/237801065_Impact_of_Agricultural_Mechanization_on_Production_Productivity_Cropping_Intensity_Income_Generation_and_Employment_of_Labour.
- Wordofa, M. G., Hassen, J. Y., Endris, G. S., Aweke, C. S. , Moges, D. K. & Rorisa, D. T. (2021). Adoption of improved agricultural technology and its impact on household income: a propensity score matching estimation in eastern Ethiopia. *Agriculture & Food Security*, 10: 5 <https://doi.org/10.1186/s40066-020-00278-2>

An Investigation of Students' Perceptions on the Effectiveness of Online Learning and Their Attitudes towards Online Learning

**Rattikan Saelee, Patcharin Emprakhon, Wanisara Meebun, Anchisa Thawornchaiying,
Aphinya Wongwai, Kamolrat Khamya, Khwanchanok Suebsook***

Faculty of Liberal Arts, Huachiew Chalermprakiet University

*Email : khwan140@gmail.com

Abstract

The COVID-19 pandemic has disrupted education worldwide. It has accelerated the development of digital platforms for teaching and learning and unleashed a variety of new technology in education. One of remarkable changes in educational practice is the shift from face-to-face learning in traditional classrooms to virtual classrooms. Such sudden shift has brought a challenge to educators, teachers and learners. Online learning is considered a useful learning tool which offers more flexibility and a number of benefits for learners. However, the effectiveness of online learning can be affected by various factors and some researchers expressed concerns over several issues. Thus, this study aimed to investigate students' perceptions on the effectiveness of online English courses and their attitudes towards online learning. Student questionnaires with open-ended and close-ended questions are used to collect quantitative and qualitative data. The participants were forty-two third-year English major students studying in six online English courses in English Program, Faculty of Liberal Arts. The findings revealed that the participants perceived online learning as effective for learning. It facilitates student learning in terms of flexible study location and time, providing online learning materials for self-revision to students. The participants also had positive attitudes towards online learning at a high level; however, negative attitude were found. Some concerns over online learning and suggestions for more effective online learning were discussed. Implications, limitations and recommendations for further studies are also included.

Keywords : online learning, online platforms, effectiveness, students' attitudes, English language learning

1. Introduction

The coronavirus disease 2019 (COVID-19) pandemic has been a global health crisis in a century, which has led to impacts and changes in many aspects of people life. In particular, the outbreak has disrupted education in over 150 countries and substantially affected around 1.6 billion students (The World Bank, 2022). Lockdowns, closures of educational institutions and social distancing have interrupted traditional educational practices resulting many schools, colleges and universities to discontinue face-to-face teaching. Learning in traditional classrooms has shifted to online learning (Inthason, 2020). These changes have caused many effects on teaching and learning including confusion and stress among learners, teachers and educators. In the meantime, the COVID-19 outbreak has accelerated the development of new forms of teaching and learning and unleashed a variety of new technology in education.

In response to the COVID-19 infection prevention policy, many universities in Thailand and in other countries have implemented online learning approach. After the COVID-19 outbreak, online classes have become more prevalent, and in many educational institutions, online courses have taken over traditional classroom-based courses. Online learning come in various forms such as synchronous or asynchronous virtual courses, hybrid learning, blended

learning and hybrid learning. A number of online platforms are used for teaching and learning are, for example, Microsoft Teams, Zoom, Google Classroom, E-learning, Edmodo and Webex. A number of advantages of online learning have often been addressed, for example, allowing students to access their learning with flexible schedules, stimulating and motivating students to learn, including promoting self-directed learning.

However, online learning has posed a challenge for teachers and students. Several researchers have voiced concerns about online learning and factors that can impede students' learning and lead to unsuccessful online learning (Mohd Basar, Mansor, Jamaludin, & Alias, 2021; Muhammad and Kainat, 2020; Das, 2022; Yang, & Cornelious, 2004).

The first concern is about the quality of online learning platforms and learning tools / features (Mohd Basar et al., 2021). It has been found that some currently used online platforms have limited or unsupportive features / tools and not convenient as they require high-speed Internet connection to access (Das, 2022). Technical problems about using learning platforms and learning tools (Mohd Basar et al., 2021) are also mentioned by students.

The second concern is the limited classroom interaction. In some teaching contexts, a lack of proper interaction and contact with students and instructors was found affecting group collaboration and student learning (Muhammad, & Kainat, 2020). Britt (2006) found that real-time sharing of ideas, knowledge and information is partially missing from the digital learning world. This lack of social interaction has made it difficult for students to do group work via online learning platforms (Adnan, & Anwar 2020).

Students' negative attitudes have also affected online learning. Hazwani et al. (2021) contend that optimistic students who are enthusiastic to learning will not find online learning an obstacle to their academic success. On the other hand, those who have opposing views feel online learning completely different from face-to-face learning (Adnan, & Anwar, 2020). Students may feel unfamiliar to online learning environment. In some online learning contexts where students are highly demanded to perform tasks or activities they need to be responsible to direct their own learning. Such demanding tasks may discourage some students and affect motivation to learn.

In addition to the abovementioned concerns, there are many factors that can intervene students' process of learning. The existing literature discuss a number of intervening variables such as lack or inadequate electronic devices resulted from economic or financial problems of learner families (Sathientharado, Paicharoen, Buranawanna, Teeranon, & Jakkaew, 2021), instability or slow connection of Internet WIFI (Sathientharado et al., 2021; Funchian, 2021), unfamiliarity or problems of using online learning platforms (Baltà-Salvador et al., 2021; Mahyoob, 2021; Thandevaraj et al., 2021; Thonghattha, 2021), unreadiness or lack of preparation for online class (Sakdapat, 2021), student learning styles, their class attendance and motivation (Jeenapak, 2021), and lack of teachers' feedback or assistance in real time (Sathientharado et al., 2021). These variables can impede students' learning and bring about negative impacts on their achievement and skill development.

In the context of Huachiew Chalermprakiet University, the third-year English major students have encountered a change to online classes since 2019. The students have learned through online platforms such as MS Teams, Zoom, E-learning, Google Classroom, Edmodo and Webex. However, it has been observed that some students have faced undesirable online learning experiences and difficulties in learning through online platforms. Sources of difficulties and

undesirable experiences were varied such as inadequate Internet access, students' unfamiliarity and problems of using online platforms, distractions caused by unsupportive learning environment, and poor study habits. As online learning has become a key mode of instruction that students take to achieve learning outcomes of the Program, it is crucially important to seek for ways to improve the quality of online learning and to help students overcome their difficulties in learning. Therefore, this study aimed to investigate students' perceptions on the effectiveness of online English learning and to provide some insights and implications for successful online teaching in the Thai EFL context.

1.2 Review of Literature

Online learning

Online learning refers to “an instruction that is delivered electronically through various multimedia and Internet platforms and applications” (Maddison, Doi, Lucky, Kumaran, 2017, p.13). ‘Online learning’ is used interchangeably with other terms such as web-based learning, e-learning, computer-assisted instruction, and Internet-based learning (Maddison et al., 2017). Currently, there are a wide range of online platforms used for online learning such as Microsoft Teams (MS Teams), Zoom, E-learning, Edmodo, Google classroom, Webex and Google Meet.

Learning effectiveness

According to Blicker (2009), learning effectiveness is defined as “the degree to which learning objectives or outcomes have been achieved or that learning is effective” (p. 973). The achieved learning outcomes are reflected in the “evidence of learning occurred, the performance which has changed in knowledge, attitudes, behavior, skill levels or a condition, status or situation” (p. 973).

The notion of measuring the online learning effectiveness in higher education has originated since the advent of Web-based distance education for over the past decade. As the traditional quality measures involve accreditation, these measures did not match with quality evaluation in the context of Internet-based teaching and learning (Parker, 2004). The quality models have been developed to measure the quality of online courses. Those models are, for example, “Standard for Quality Online Courses” developed by Michigan Virtual University, and “Sloan-C’s Quality Framework Learning Effectiveness” developed by Sloan Consortium in 2003 (Blicker, 2009). One of the known quality models among online practitioners, Chickering and Gamson’s (1987) Seven Principles for Good Practice in Undergraduate Education” proposed a taxonomy for the effectiveness of the educational process consisting of seven principles: 1) encouragement of instructor-student communication, 2) development of student–student cooperation, 3) use of active learning techniques, 4) offering timely feedback, 5) emphasis on student time on task, 6) communication of high expectations, and 7) respect for student differences.

The recent models have been developed based on the quality framework that embrace pedagogical practices and creating student-centered constructivist learning environment (Blicker, 2009). Based on the constructivist learning theory, learning involves knowledge-building processes where knowledge is constructed by students. With the facilitation of course structure and supportive learning environment which provide opportunities for “teacher-student and student-student interactions, students construct knowledge and formulate newly learned concepts” (Tsang et al., 2021). The criteria for quality evaluation of learning include issues of

accessibility, learning styles, student engagement and collaboration, course design, layout, appearance, and technologies used.

According to the Criteria and standards used in evaluating web-based instruction and Delivery Guidelines, the Electronic Learning Institute developed six broad criteria that consists 96 quality process standards used in evaluating online instruction and delivery (Electronic Learning Institute, n.d. as cited in Blicher, 2009, p. 966). The six criteria includes:

1. Flexibility of learner interaction and communication with faculty, peers, and course materials,
- 2) Attention to detail in the course and its materials,
- 3) Attention to detail in the Web design,
- 4) Detailed faculty communication to learners,
- 5) Clear timelines and due dates and
- 6) Creating a sense of collaborative teamwork and “groupness”

In this study, the researcher adopted Blicher’s (2009) definition of online learning effectiveness and applied the criteria for assessing the quality of online instructions in terms of six dimensions: 1) accessibility of online learning platforms, 2) flexibility of learner interaction and communication with teacher, peers, and course materials, 3) detailed course and materials, 4) teacher communication to learners, and 5) creating a sense of collaborative teamwork.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is currently used as a model for understanding people’s acceptance of information technology (Gefen, & Staub, 2000; Wang et al., 2003). It is theoretical framework developed by Davies (1989) for investigating “how perceived usefulness, and perceived ease of use of a new technology or service affect its acceptance” (Tsang et al., 2021, p. 404). According to Davies (1989), the TAM lies on the two components ‘perceived ease of use’ and ‘perceived usefulness’ which are used to explain online users’ intention to use the information technology. Perceived ease of use is the degree to which a user feels that the system is easy to understand and use. It is a variable that influence the acceptance and adoption of a particular information technology. The perceived usefulness (PU) refers to the degree to which a person believes that using a particular system would enhance his or her work performance (Davies, 1989). Within the TAM, perceived ease of use (PEU) is a variable that precede perceived usefulness (Davies, 1989) as the easier a user feels it is to use a new technology or service. TAM has a relationship with satisfactions and directly affect factors for the use of information technology. In this research context, the researchers adopted Davies (1989) two concepts of Perceived ease of use and Perceived usefulness and applied the TAM model adapted by Tsang et al. (2021) was used as a framework for investigating students’ attitudes of online learning. The model of TAM is illustrated in Figure 1.

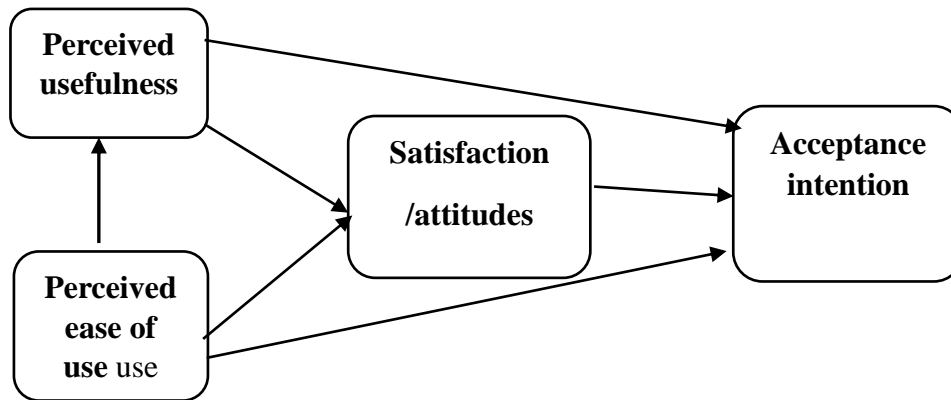


Figure 1 The model of TAM are Perceived Usefulness (PU) and Perceived Ease of Use (PEU)

Tsang et al.'s (2021, p. 406) model of TAM adapted from Davies (1989)

To determine the perceived usefulness of a product, use the guidelines for rating the usefulness of technology on the following six points:

1. Using this product at work would help me complete tasks faster.
2. Using this product would improve my job performance.
3. Using this product would increase my productivity.
4. Using would increase my effectiveness at work.
5. Using this product would make it easier to do my job.
6. I would find this product useful at work.

To measure the Perceived Ease of Use, use the guidelines for rating the ease of the technology on the following six points:

7. Learning how to handle the product would be easy for me.
8. I would find it easy to let the product do what I want it to.
9. My interaction with this product would be clear and smooth.
10. I would find this product flexible to work with.
11. It would be easy for me to become agile with the product.
12. I would find it easy to use.

Issues to be concerned and factors affecting the effectiveness of online instructions

In the recent years, several researchers (Mohd Basar, et al., 2021; Muhammad & Kainat, 2020; Das, 2022) have discussed issues to be concerned in providing online instructions. The first concern is about the quality of online learning platforms and learning tools / features. To facilitate student learning, online learning platforms should be easy to access, up-to-date and fit for the teaching and learning context. In practice, however, teachers may make choices of different online learning platforms / applications, and some of those may have limited or unsupportive features / tools and require high-speed Internet connection to access (Das, 2022). This can cause students taking online classes at home or dormitory to strive for high-speed Internet WIFI. Also, the know-how of using platforms and technical support for losing connection and other technical problems bring about challenges in online learning. When students encounter technical problems during their online classes, those who do not know how to

get technical support may face difficulties in using the platform and learning tools. With these limitations of online platforms, online learning may become less effective and students may have undesirable online learning experiences.

Social interaction in online classrooms is another concern to be addressed. Online classes where physical interactions between teachers and students and among students are limited can make some students experience a sense of isolation. Yet, a lack of proper interaction and contact with students and instructors was found in some teaching contexts (Muhammad, & Kainat, 2020). However, Garrison (2009) highlights social presence as a crucial component of online learning theory and model. Social presence involves the way the students adjust themselves to be part of the community, communicate purposefully in a trusting environment, and develop interpersonal relationships with other members. Therefore, in online classrooms, teachers should provide interactive online instructions and promote interactions to build a sense of community among students, help them develop interpersonal relationship with others, motivate their learning and engagement.

Apart from the abovementioned concerns in online teaching, there are many factors that can intervene students' process of learning. The first factor that is inadequate or limited Internet access. It is often mentioned as one of significant factor affecting the effectiveness of online learning (Hazwani et al., 2021). Many students experience slow Internet connection, fail to access Internet WIFI or get disconnected while studying via online learning platforms. The sources of Internet problems are varied, for example, poor network caused by Internet providers, bad weather, geographical locations and unaffordability of online learning devices and internet packages as well as limited finance for Internet services. In the study of Sathientharado et al.(2021, slow or poor quality of Internet connection causes delay or interrupts online classes. This also caused some students to miss online classes and fail to catch up the lessons (Funchian, 2021)

Students' unfamiliarity and problems of using online learning platforms is another factor affecting students' learning. The shift to virtual classrooms requires students and teachers to learn how to use various learning platforms-MS Teams, HCU E-learning, Webex, Google Classroom, Facebook Live, Google Meet and Zoom. Students need to adapt to new technology and learn how to use tools and functions on those online learning platforms. Those who lack familiarity, the know-how of using online platforms and have inadequate trainings about learning platforms tend to experience difficulties in online classrooms. Without the know-how for dealing with technical problems, students may lose their learning opportunities such as being unable to attend classes or join class activities on time, submitting their works late, and missing the exams. Such negative learning experiences have potential to impact students' academic performance and their psychological states (Baltà-Salvador et al., 2021; Thandavaraj et al., 2021; Thonghattha, 2021). Therefore, students should prepare for online learning, for example, by getting familiar with the learning platforms before the class time. As Sakdapat (2021) points out, online learning preparation behaviors affect the effectiveness of their online learning. When students come in online class before the class time for preparation, study the learning materials, set their learning goals, and get their mind ready for learning, they can gain a lot of benefits from online learning.

The third factor is distraction resulting from unsupportive learning environment and part-time job. Distraction plays a role in affecting the students' online learning. While paying attention to class, many students are distracted by several distractors. One source of distractors is unsupportive learning environment. As online learning offers flexible learning opportunities in

terms of place, students can make their own choices of location to study. Although this is very convenient for students, some locations may not be supportive to their learning and bring about distractors. While studying at their home, dormitory, in a car or other places outside the classrooms, students can be distracted by nearby people such as family members, roommates and friends. Loud noise, uncomfortable rooms and seating, inadequate light and bad weather can also distract student attention from online classes. Such unsupportive learning environments and distractors can produce negative impacts on student learning and their academic achievement.

Lastly, online learning can bring on poor study habits among students. As students are allowed to access learning platforms equipped with ready-made learning materials such as lecture videos, online homework and online supplementary materials, they can study those materials at any time and at their own pace. The availability of learning resources can be beneficial to students' self-practice and revision. On the other hand, this may turn out to be a drawback causing students to have poor study habits. Students may become less active in class, shift their attention away from online classes, be more likely to miss classes, and not pay attention to lectures or join learning activities during the class time, frustration, stress, and demotivation in language learning. These poor learning habits can subsequently affect student learning. For example, students may lack clear understanding of the lessons (Inthason, 2020).

Previous studies on the effectiveness of online learning

Previous studies on the effectiveness of online learning were varied in research focus and scope of the study. Some experimental research which focus on examining the effectiveness of online instructions compare the means of test scores or performance of students who took face-to-face learning and online learning. Meanwhile some studies found significant difference in test scores of students, some found mixed results.

Jeenapak (2021) used the semi-experimental methods to examine the effectiveness of online learning. Ninety macroeconomics undergraduates were divided into 2 groups: the regular study group and the online study group. The T-Test results revealed a significant difference between the scores of the two groups of students. It is concluded that the students studied in the classroom had performed better than those in the online study group with a slightly lower average. To gain a comprehensive data of the effectiveness of online learning, Nguyen (2015) compared the evidence obtained from several studies. Based on the findings of Nguyen, most studies found that distance and online education were effective, but there was no significant difference in the effectiveness of distance and online learning. However, some studies found that traditional face-to-face learning was more effective than the distance and online learning while some reported inconclusive results,

Sawangri and Gerdpanyal (2021) investigated the effectiveness of online learning, learners' achievement and satisfaction towards online learning management of 37 first-year Business major students. The findings showed that online learning management was efficient at a moderate level. The participants were highly satisfied with the online learning management. However, the academic achievement of students on online learning were lower than the required criteria.

Recently, Batdi, Doğan, and Talan's (2021) investigated the impacts of online learning and its effectiveness to student achievement. Unfortunately, the results are not conclusive as many researchers and scholars note (e.g., Means et al., 2013; Nguyen, 2015; Sun & Chen, 2016)

that the effectiveness of online learning is greatly influenced by the emerging digital technologies and new emergency cases, thus further research syntheses on reexamining its effectiveness is needed.

With a focus on investigating learners' perspectives and attitudes on the effectiveness of online learning, Muhammad and Kainat (2020) investigated the effectiveness of online learning in Pakistan from higher education students' perspectives. Their study also aimed to highlight the challenges and obstacles of online learning faced by the students. Using online survey technique, the researchers collected the data to investigate general attitudes of 126 Pakistani higher education students towards online teaching. The findings reveal that the major challenges of online learning in Pakistan include lack of access to internet facilities, lack of proper interaction and did not contact with students and instructors and ineffective technology.

Muhammad and Kainat (2020) point out that the sudden shift from traditional classrooms and face-to-face learning to online learning has resulted in a completely different learning experience for students. Most students did not have access to high speed or reliable internet services and were thus struggling with online learning. In addition, owing to the limited resources of educational institutions, only several institutions were able to introduce effective online classes during the initial months of COVID-19. The research also reported additional challenges faced by students like lack of campus socialization, group study issues and instructors response time. Based on the higher education students' perspectives, traditional classroom learning was more effective as compared to online learning or distance education. In this study, the researchers concluded that online learning cannot produce effective results in underdeveloped countries like Pakistan, where a vast majority of students are unable to access the internet due to technical and monetary issues.

Mohd Basar et al (2021) examined the effectiveness of online learning and the challenges that it presents to pupils' abilities to learn. This study employed a case study design using a survey questionnaire, administered to 99 students aged 15-16 from a secondary school in Jasin, Melaka. Regarding the findings on students' perceptions about the effectiveness of online learning, the researcher reported that conventional learning (face-to-face) is highly important the majority of respondents felt that learning face-to-face is more effective than online learning. However, the respondents felt motivated by online learning. Regarding the challenges in online learning faced by the students, the researcher concluded that students' learning was affected by limited internet access because of poor infrastructure and the high costs of internet packages. A lack of interaction in online classrooms between pupils and teachers and the absence of social relationships and this lack of social interaction has made it difficult for pupils to do group work via online learning (Adnan, 2020; Hazwani et al., 2021).

To conclude, it is important to note that the studies on the effectiveness were context-specific. With different research focus and scope, context of study, participants, methods of data collection and research instruments, the findings from previous studies yield context-specific and inconclusive results. Therefore, further investigation on the effectiveness of online learning from students' perspectives is needed. This study aimed to investigate students' perceptions of effectiveness of online English courses and students' attitudes towards online learning so that the findings can shed lights on how to help students learn through online platforms effectively and gain benefits and enjoyable experiences in online learning.

2. Objective of the Study

The objective of this study was two-fold: 1) to investigate students' perceptions on the effectiveness of online learning and 2) to investigate students' attitudes towards online learning.

Researcher question 1: What are the students' perceptions on the effectiveness of online learning?

Researcher question 2: What are the attitudes of students towards online learning?

3. Research methodology

3.1 Research methods & Participants

This research was undertaken using quantitative and qualitative methods of data collection in order to obtain comprehensive data. The research was conducted at Huachiew Chalermprakiet University in semester 1 /2022. The participants were forty two third-year English major students studying in the Faculty of Liberal Arts. The participants were randomly selected and they were homogeneous in experiences of studying English courses. They were voluntary to participate in this study. The participants have had experiences of taking online English courses (12 core courses) for the whole academic year of 2021 (semester 1-2/2021). All of them have had experiences of studying through different online platforms (MS Teams, E-learning, Google Classroom, Edmodo and Webex).

3.2 Research Instrument

Student Questionnaire on Google Form app was used to obtain quantitative and qualitative data. The questionnaire was divided into 3 parts.

Part 1 elicited students' perceptions on the effectiveness of online learning. The statements on the questionnaire cover six dimensions of online learning effectiveness: 1) accessibility of online learning platforms, 2) flexibility of learner interaction and communication with teacher, peers, and course materials, 3) detailed course and materials, 4) teacher communication to learners, 5) creating a sense of collaborative teamwork and "groupness". The participants were asked to respond to 11 statements using a five Likert's rating scale ranging from 1 = strongly disagree to 5 = strongly agree).

Part 2 investigated students' attitudes towards learning online, consisting of 13 statements with a five Likert's rating scale ranging from 1 = strongly disagree 5 = strongly agree). The statements were developed based on the two components : perceived ease of use and perceived usefulness.

Part 3 investigated students' learning experience, feelings, problems about online learning and suggestions for effective online learning. This part included 3 open-ended questions.

3.3 Data Collection & Data Analysis

The researchers administered the questionnaires to the participants. The participants were given a link and QR code to access the questionnaire. The quantitative data on demographic information and responses from the five-rating scale on the effectiveness of online English courses and students' attitudes were analyzed using descriptive statistics. The percentages, means, and standard deviations were calculated. The qualitative data from written responses about students' online learning experience, problems and suggestions were analyzed using content analysis and grouped into themes for discussions. The researchers also took ethical concerns and human rights into account.

4. Results

To answer research questions, the quantitative and qualitative results obtained from the questionnaire were presented in the following order: the demographic data of the participants, the effectiveness of online English courses, and the students' attitudes towards their online learning. Regarding the demographic data of the participants, most of the participants are female with 81% (N=34) and male participants were 19% (N=8). All the participants had previous experience of online English learning.

Researcher question 1: What are the students' perceptions on effectiveness of online learning?

The quantitative results from participants' responses regarding their perceptions on the effectiveness of online English learning in terms of teaching and class management were presented. As shown in Table 1, the overall mean score of the effectiveness of online learning was high with $\bar{X}=4.08$ (SD = 0.76). With the highest mean score ($\bar{X}=4.55$, SD = 0.51), item 2, most of participants strongly agreed that online learning allows them to take classes anywhere they want. They also viewed that online learning is convenient at a high level ($\bar{X}=4.35$, SD = 0.59), and that online learning is flexible enabling them to review the lessons and study from the recorded lecture videos any time ($\bar{X}=4.3$, SD = 0.59). Regarding learning resources, the participants said that they (lecture videos / handout/ worksheet/ other supplementary) are available and accessible on online learning platforms ($\bar{X}=4.2$, SD = 0.62) while online platforms (MS Teams / Google Classroom / Edmodo / E-learning) used for online learning are convenient and appropriate ($\bar{X}=4.1$, SD = 0.8). In addition, with the same mean score of 4.00, the participants agreed at a high level that online learning allows them to study anytime on their own desire (SD = 0.9), online platforms have sufficient features /tools to facilitate online classes and their learning. (e.g., Meeting, video recording, room for small group discussion, where to submit assignment) (SD =0.9), and online tools are easy to use and up to date (SD = 0.7). In terms of class management, the participants agreed at a high level that teachers open their cameras to make interactive online classes and while studying, teachers allow me to interact with them and my classmates with the mean of 3.9 each (SD = 0.7, SD = 0.9) respectively.

Table 1 Mean Scores and Standard Deviations of the effectiveness of online learning

Students' perceptions on the effectiveness of online learning	\bar{x}	SD	Meaning
1. Online learning is convenient.	4.35	0.59	Very high
2. Online learning allows me to take classes anywhere I want.	4.55	0.51	Very high
3. Online learning allows me to study English anytime on my own desire.	4	0.9	High
4. Online learning is flexible enabling me to review English lessons and study from the recorded lecture videos any time.	4.3	0.8	Very high
5. Online platforms (MS Teams / Google Classroom / Edmodo / E-learning) used for online learning are convenient and appropriate.	4.1	0.8	High
6. Online platforms have sufficient features /tools to facilitate online classes and my English learning. (e.g., Meeting, video recording, room for small group discussion, where to submit assignment)	4	0.9	High

Students' perceptions on the effectiveness of online learning	\bar{x}	SD	Meaning
7. Online tools are easy to use and up to date.	4	0.7	High
8. Teachers open their cameras to make interactive online classes.	3.9	0.7	High
9. While studying online, I can interact with teachers and my classmates.	3.9	0.9	High
10. While studying online, I can ask questions and ask for help from teachers.	3.7	0.86	High
11. Learning resources (lecture videos / handout/ worksheet/ other supplementary) are available and accessible on online learning platforms.	4.2	0.62	High
Overall	4.08	0.76	High

Researcher question 2: What are the attitudes of students towards online learning?

To answer the research question 2, the quantitative results were from close-ended questions and the qualitative results from the participants' written responses. As seen in Table 3, the overall mean score of students' attitudes toward online learning were high with $\bar{x} = 3.66$ (SD = 0.93). The item with the highest mean score was 'There are possibility of being distracted by family members / unsupportive environment' ($\bar{x} = 4.48$, SD = 0.86), followed by 'Taking online classes can help me concentrate to learning and perform better' that the participants agreed with $\bar{x} = 4.10$ (SD = 0.89), and the participants agreed that they have sufficient IT equipment (smartphone / computer /iPad) to participate in online classes ($\bar{x} = 4$, SD = 0.92). The participants said that their home environment is supportive for participating in online classes ($\bar{x} = 3.95$, SD = 1.1). Moreover, the participants said that they are comfortable using IT equipment to study online at a high level ($\bar{x} = 3.9$, SD = 0.91), and they are enjoyable with studying in online classes ($\bar{x} = 3.85$, SD = 1.19). Regarding studying online classes, they feel more comfortable studying online classes ($\bar{x} = 3.8$, SD 0.9). With the same mean score of 3.7, the participants agree at a high level that they can access to Internet for online classes (SD = 1.03), they can complete group assignment using online learning (SD = 0.98), and they can ask questions and ask for help from teachers via online platforms (SD = 0.86). In addition, the participants said that they can achieve their learning goals of the courses at a high level ($\bar{x} = 3.65$, SD = 0.81). Also, the participants said that they can do part-time job while taking online class at a high level ($\bar{x} = 3.45$, SD = 1.39). There is the same mean score of 3.35 at moderate level, the participants agreed that they understand the lessons using online learning (SD = 0.91), and they are motivated to learn when studying in online classes (SD = 0.93). 'I am confident to participate (respond to question & share ideas) when learning online' that is the participants agreed at moderate level ($\bar{x} = 3.25$, SD = 0.91) respectively.

Table 2 Mean Scores and Standard Deviations of the students' attitudes towards their online learning

Students' attitudes towards their online learning	\bar{x}	SD	Meaning
1. I have sufficient IT equipment (smartphone / computer /iPad) to participate in online classes.	4	0.92	High
2. I am comfortable using IT equipment to study online.	3.9	0.91	High
3. I find it easy to access to Internet for online classes.	3.7	1.03	High

Students' attitudes towards their online learning	\bar{x}	SD	Meaning
4. I am confident to participate (respond to question & share ideas) when learning online.	3.25	0.91	Moderate
5. I understand the lessons using online learning.	3.35	0.67	Moderate
6. I feel more comfortable studying online classes.	3.8	0.9	High
7. I am motivated to learn when studying in online classes.	3.35	0.93	Moderate
8. I am comfortable in doing group assignment online.	3.7	0.98	High
9. I am enjoyable with studying in online classes.	3.85	1.19	High
10. My home environment is supportive for participating in online classes.	3.95	1.1	High
11. I am distracted by family members /people around me when studying online.	4.48	0.86	Very high
12. I have more concentration on learning and perform better when taking online classes.	4.10	0.89	High
13. I can achieve my learning goals of the courses.	3.65	0.81	High
Overall	3.66	0.93	High

Based on the participants' written responses on the questionnaires, they expressed positive and negative attitudes towards online learning. It is obvious that the participants perceived ease of use of online learning in terms of convenience and flexibility of online learning. However, the participants addressed some problematic issues of online learning. Those are uncomfortable feelings when opening a camera during taking classes, stress and pressure due to too many assignments and demanding tasks, lose of concentration due to looking at a screen for a long time, Internet WIFI problems, lack of familiarity and how to deal with technical problems about online learning platforms, unsupportive learning environment, distractors, mismatch of learning styles and learners' needs and inconvenience for collaborative tasks /group work.

The majority of participants held positive attitudes towards online learning. Those agreed with the convenience and flexibility of online learning. The students viewed that it's flexible to take online class and learn everywhere. They did not need to spend time for traveling to take classes at university. Following are their excerpts:

"It is very convenient for me. I don't get tired of spending long hours on the road to go to the university."
(Participant 13)

"Online learning is convenient because I can study everywhere."
(Participant 10 & Participant 17)

"Online learning is convenient. I can study at anywhere and sometimes I can do a part-time job."
(Participant 4)

"From my online learning experience, it is more convenient. I can study at anywhere, but interaction with peers is less than face-to-face interaction in classroom."
(Participant 7)

However, some participants had negative attitudes towards online learning. They expressed their uncomfortable feelings and undesirable online learning experiences when opening a camera during class time.

“I have quite bad experience about online learning. I feel uncomfortable to turn on the camera every time.” (Participants 29)

Some participants voiced about their stress and pressure from overloading assignments and being given more responsibility of their learning. As they wrote:

“We get stressed and do not get enough sleep because teachers often give many assignments and the deadlines are very close- the same date or week.” (Participants 34)

“I would like teachers to consider that online learning is not easy. It is difficult, just like studying onsite and I want the teachers to give less assignments because we are so tired.” (Participant 11)

“I got pressure in taking responsibility of my own learning.” (Participant 9)

One participant expressed about his/her lose of concentration when looking at a screen for a long time. It might be explained that the students may not have the ability to concentrate on something for a long period of time and it might be personal factor. As the participant wrote.

“I cannot concentrate to online learning so I don’t participate much in class activities.” (Participant 15)

Regarding students’ problems in online learning, the majority of participants reported about Internet WIFI problems as a factor that impede their process of learning. The participants complained bout inadequate Internet access, slow /poor Internet WIFI because of bad weather or some geographical locations. Following are their excerpts.

“My Internet access in the apartment makes me crazy. It has errors every time I want to use it.” (Participant 6)

“The Internet at my place is so poor that I cannot use it.” (Participant 8)

“I feel normally with online learning. However, this month my internet in the apartment so bad, that makes me headaches about online learning.” (Participant 16)

“In some areas, the Internet WIFI is poor. This makes me unable to learn effectively.”
(Participant 22)

“If the Internet connection is jammed, online learning is interrupted and we missed the lessons at that time.”
(Participant 2)

“ I come in online classes late because the rain caused unstable Internet connection.”
(Participant 3)

Some students had technical problems of using online tools and features on learning platforms. Below is a list of excerpts from the participants:

“Online learning is convenient, but I have problems with Internet, online tools, applications and people in my house.”
(Participant 35)

The unsupportive learning environment, particularly loud noise and disturbance caused by people in family were mentioned by the participants. It distracted their attention from online classes. Following are the excerpts:

“I was disturbed by the noise from construction around my place.”
(Participant 12)

“Sometimes my family members make loud noise and that makes me lose attention.”
(Participant 11)

“There is loud noise in my living environment.”
(Participant 32)

“Loud noise is from the nearby environment such as construction.”
(Participant 4 & Participant 5)

In some participants’ perspectives, online learning was not a suitable mode of learning and doing collaborative tasks. Online learning might not match their learning styles and their needs. As the participants wrote:

“Online learning is convenient, but I don’t understand whenever I study online.”
(Participant 19)

“I don’t understand the content taught in online classes.”
(Participant 16)

“I feel that some lessons can be easily understood, but some lessons should be taught onsite in the classroom.”
(Participant 12)

Online learning caused difficulty in doing group work and interact with peers. As the participants wrote:

“Online learning makes it more difficult to work in groups. Online group meeting became more complicated than face-to-face meeting.” (Participant 7)

In addition, the participants gave suggestions for more effective online learning. The participants suggested giving less online homework and assignments, promoting more interaction between teachers and students, making video recording of lectures for students’ revision, solving teachers’ Internet problems. Following are the excerpts:

“I would like teachers to consider that online learning is not easy. It is difficult, just like studying onsite and I want the teachers to give less assignments because we are so tired.” (Participant 11)

“I think online classes will be smoother if the professor records and drops the file of the class before the class schedule. it will help facilitate my learning.” (Participant 6)

“Teachers should make video recordings while teaching online so that we can watch the videos afterwards for our revision.” (Participant 37)

“The files of learning materials used for class activities should be uploaded or posted for students before and after the class.” (Participant 8)

“I think that teachers should have students submit the assignments through a single application.” (Participant 12)

“The teacher should try to improve your Internet connection.” (Participant 18)

“I would like teachers to promote classroom interaction between teachers and students.” (Participant 29)

5. Discussion

5.1 Students’ perceptions on effectiveness of online learning

The findings on the effectiveness of online learning reveal that in students’ perceptions, online learning is effective at a high level and supports their language learning. It eases them to learn everywhere they want and is convenient, especially when they cannot attend onsite classes at the campus. Moreover, online learning offers opportunities for students to make video recordings of the lectures while studying on online platforms. This enables them to study or review the lessons at any time. Furthermore, online platforms have sufficient features or tools to facilitate online classes and learning. The students found online tools easy to use and up to date. Learning resources (lecture videos, handout, worksheet and other supplementary) are also available and on online learning platforms. These findings are in accordance with the findings of

previous research (Means et al., 2013; Jeenapak, 2021; Mahyoob, 2021), which revealed that online learning is an effective learning approach and the effectiveness of online learning has influence on students' learning and their academic performance (Mahyoob, 2021). However, the participants were undecided about the way teachers allow participants to interact with them and classmates. It is found that some participants did not want to open their cameras and interact with teachers in online classes because they felt uncomfortable and lost their concentration on the lessons. This might be owing to their introverted personality.

5.2 Student attitudes towards online learning

Overall, the majority of participants held positive attitudes towards online learning. Most participants reported that online learning is advantageous to them in many aspects. In terms of benefits to their process of learning, firstly, taking online classes can help students concentrate on learning and perform better. Besides, they can complete group assignment, ask questions, ask for help from teachers via online platforms. Most students also agreed that they understood lessons taught through online classes and can achieve their learning goals. With respect to psychological aspects, the students felt more comfortable and were satisfied with online classes. They were confident to respond to questions and share ideas including being motivated to learn in online classrooms. Regarding the views towards learning environment and IT readiness for online learning, most students agreed that their home environment was supportive for online classes though some students were facing distractors. When asking about IT readiness, it is found that the students had sufficient IT equipment such as smartphone, computer, or iPad and were comfortable with using IT equipment to study online. Based on these findings, it can relate to the TAM principle of Davies (1989) and conclude that the students had perceived ease of use and usefulness of online learning. They felt that online learning is easy to understand and use and they believe that online learning would enhance their learning.

However, some participants held negative attitudes towards online learning. They reported their uncomfortable feelings, stress, pressure and unsatisfactory online learning experiences. Dealing with overloading assignments, taking more responsibility of their learning, opening cameras while studying, and their individual factors are the sources of undesirable online learning experiences. Meanwhile, some students viewed that online learning is not suitable for English language learning and collaborative learning. This learning approach might not match their learning styles and their needs.

Regarding the problems in online learning, the quantitative and qualitative results showed that the students faced unsupportive environments and distractions of family members while taking online classes. Loud noise of construction and nearby living environment including disturbance caused by people in family cause students to lose concentration from their learning. The accessibility and quality of Internet was another major problem they concerned. Poor Internet WIFI resulting from bad weather and other factors interrupted their learning leaving them annoyance and frustration. As for the participants' suggestions for improving online learning to be more effective, they suggested giving less online homework and assignments, promoting more interaction between teachers and students, making video recording of lectures for students' revision, solving teachers' Internet problems.

6. Implications, Limitations, Recommendations for further studies and Conclusion

6.1 Implications of the study

The research findings can contribute to useful pedagogical implication. Firstly, the findings on the effectiveness of online learning show that online learning is an effective way of learning English for the students studying in English Program. The findings shed lights on pedagogy in English language teaching. To contribute to the effectiveness of online learning, teachers should take into account of technological readiness and learning contexts and ensure that the students can access technological devices and Internet service for online learning. Teachers may consider using appropriate online platforms which offer useful features or tools so that it can help facilitate student learning. Students can gain benefits from learning online as it allows them to learn at anywhere and use online learning resources for lesson review. Additionally, the findings on student attitudes towards online learning will be useful basis information for course instructors in improving online courses. The students' attitudes towards learning environment, resources, technological access, student assignment and class management can be used to make online learning more effective and enhance student learning.

6.2 Limitations of the study and recommendations for further studies

Due to the time constraint, the number of participants participated in this research is limited and has resulted in the generalizability of research findings. Thus, a large sample size is recommended for further research. In further studies, broader scope of participants' fields of study should be considered rather than focusing only on English major students. With broader scope of participants, the research results may bring additional implications. Other instruments should be included so that it allows the researchers to gain more in-depth information and triangulate the data.

6.3 Conclusion

The study was conducted to investigate students' perceptions on effectiveness of online English learning and to investigate students' attitudes towards online learning. Forty two third-year English major students at Huachiew Chalemprakiet University participated in the study. Student Questionnaire with closed-ended and open-ended questions were used to collect the quantitative and qualitative data. The findings revealed that the participants perceived online learning as effective in various aspects. This indicated that the students had perceived ease of use and perceived usefulness of online learning. It can be explained in relation to Davies's (1989) TAM model that the students recognized the usefulness of online learning. They believe that online learning would enhance their work performance and that the students are likely to accept and adapt themselves to online learning.

The participants had positive attitudes towards online learning. However, problematic issues which have effects on students' online learning were mentioned. These include being interfered by accessibility and quality of Internet connection, unsupportive learning environment, distractions and others. The findings on the effectiveness of online English courses and students' attitudes towards their online learning can be useful basis information for language teachers in improving online courses. With more effective online pedagogy, students can gain benefits on their learning and academic achievement and have desirable online learning experiences.

7. References

- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' Perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45–51. <https://doi.org/10.33902/JPSP>
- Baltà-Salvador, R., Olmedo-Torre, N., Peña, M., & Renta-Davids, A. (2021) Academic and emotional effects of online learning during the COVID-19 pandemic on engineering students. *Educ Inf Technol* 26, 7407–7434. Retrieved April 6, 2023, from <https://doi.org/10.1007/s10639-021-10593-1>
- Batdi V., Doğan Y., & Talan T. (2021). Effectiveness of online learning: A multicomplementary approach research with responses from the COVID-19 pandemic period, *Interactive Learning Environments*, 52(4), 474-514.
- Retrieved August 20, 2021, from <https://www.tandfonline.com/doi/abs/10.1080/10494820.2021.1954035?journalCode=nil>
[e20](https://doi.org/10.1080/10494820.2021.1954035)
- Blicker, L. Evaluating quality in the online classroom. In Encyclopedia of Distance Learning; Rogers, P.L., Ed.; IGI Global: Hershey, PA, USA, 2009, 965-973
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13, 319–340.
- Funchian, N. (2021). The problems arising in online learning of Thai children during the outbreak of COVID-19. Retrieved September 30, 2021, from <https://www.trueplookpanya.com/education/content/89915>
- Gefen, D., & Straub, D. W. (2000). The relative importance of perceived ease of use in IS adoption: A study of e-commerce adoption. *Journal of the Association for Information Systems*, 1(1), 8, 1-30. Retrieved May 18, 2023 from <https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1191&context=jais>
- Hazwani, M. N., Noor Raudhiah, A. B., & Norziah, O. (2021). E-pembelajaran dalam kalangan pelajar di sebuah institusi pengajian tinggi Selangor. Attarbawiy: *Malaysian Online Journal of Education Revised*, 1(1), 119-129. Retrieved May 18, 2023 from <https://files.eric.ed.gov/fulltext/EJ1309475.pdf>
- Inthason, S. (2020). COVID - 19 and online teaching case study: Web programming course. *Journal of Management Science Review*, 22(2), 203-213. Retrieved August 30, 2021, from <https://so03.tci-thaijo.org/index.php/msaru/article/view/244722/167805>
- Jeenapak, K. (2021). The Effectiveness of online learning. *The 14th National & International Conference on "Global Goals, Local Actions: Looking Back and Moving Forward 2021*. Retrieve August 30, 2021, from <http://www.journalgrad.ssrui.ac.th/index.php/8thconference/article/view/2428/2274>
- Maddison, T., Doi, C., Lucky, S., & Kumaran, M. (2017). Literature Review of Online

- Learning in Academic Libraries. In Tasha Maddison and Maha Kumaran (eds). *Distributed learning: pedagogy and technology in online information literacy instruction*, (pp.13-46). Oxford: Chandos Publishing. Retrieved August 30, 2021, from <https://www.sciencedirect.com/science/article/pii/B9780081005989000027>
- Mahyoob, M. (2021). Online learning effectiveness during the COVID-19 pandemic: A case study of Saudi Universities. *International Journal of Information and Communication Technology Education*, 17(4), 1-14. DOI: 10.4018/IJICTE.20211001.0a7
- Means, B., Toyoma, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature. *Teacher College Record*, 115(3), 1-47. Retrieved August 30, 2021, from https://www.sri.com/wp-content/uploads/2021/12/effectiveness_of_online_and_blended_learning.pdf
- Mohd Basar, Z., Mansor, A. N., Jamaludin, K. A., & Alias, B. S. (2021). The effectiveness and challenges of online learning for secondary school students: A case study / Zulaikha Mohd Basar ... [et al.]. Universiti Teknologi MARA.
- Nguyen, T. (2015). The effectiveness of online learning: Beyond no significant
- Parker, N. (2004). The Quality Dilemma in Online Education Revisited. In Anderson, T. (ed). *Theory and practice of online learning*. AU Press, Athabasca University (305-342). difference and future horizons. *MERLOT Journal of Online Learning and Teaching*, 11(2), 309-319. Retrieved August 30, 2021, from <https://www.scirp.org/%28S%28351jmbntvnsjt1aadkposzje%29%29/journal/paperinformation.aspx?paperid=107575>
- Sakdapat, K. (2021). Psychological characteristics and situational factors as correlates of online learning preparation behavior of undergraduate students. *Journal of Social Development*, 23(2), 106-131. Retrieved October 30, 2021, from http://ssed.nida.ac.th/images/jsd/Y23_2/06Naksit_Sakdapat.pdf
- Sathientharadol, P. et al. (2021). Effects of Online Learning in the Epidemic Situation of Coronavirus Disease 2019: A-Case Study of Bachelor of Education and Bachelor of Arts Students, Program in English, University of Phayao. *Journal of SaengKhomKham Buddhist Studies*, 6(3), 423-439 Retrieved August 30, 2021, from <https://so02.tci-thaijo.org/index.php/jsbs/article/view/248880/169697>
- Sawangri, B., & Gerdpanyal, P. (2021). Study of the effectiveness of online learning and the academic achievement of undergraduate students. *RMUTSB Acad. J. (Humanities and Social Sciences)*, 6(2), 273-290. Retrieved August 30, 2021, from <https://so05.tci-thaijo.org/index.php/rmutsb-hs/article/download/251430/172530>
- Sun, A., & Chen, X. (2016). Online education and its effective practice: A research review. *Journal of Information Technology Education: Research*, 15, 157-190. Retrieved August 20, 2021, from <http://www.informingscience.org/Publications/3502>
- Tangcharoen, S., Janprasert, T., & Sodmanee, O. (2013). Psycho-Social Factors and Time Management Ability Related to Responsibility Behavior of Students in Part Time Bachelors of Rajamangala University of Technology Phra Nakhon. *Journal of Behavioral Sciences for Development*, 98-112. Retrieved August 20, 2021, from <http://bsris.swu.ac.th/article/7.pdf>

- The World Bank. (2022). Remote Learning During COVID-19: Lessons from today, principles for tomorrow, Retrieved April 6, 2023, from <https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic>
- Thonghattha, M. (2021). The Situation of Online Learning Management during the COVID-19 Pandemic of Foreign Languages Department Teachers at Pakphanang School in Nakhon Si Thammarat Province. *Lawasri Journal*, 5(1), 43-52. Retrieved August 30, 2021, from <https://so04.tci-thaijo.org/index.php/lawasrijo/article/download/250028/171452>
- Wang, Y. S., Wang, Y. M., Lin, H. H., & Tang, T. I. (2003). Determinants of user acceptance of internet banking: An empirical study. *International Journal of Service Industry Management*. Retrieved August 30, 2021, from <https://doi.org/10.1108/09564230310500192>
- Yang, Yi, Cornelious, L. (2004). Ensuring quality in online education instruction: What instructors should know? Proceeding paper presented at Annual Proceeding, *Association for Educational Communications and Technology*, vol 1 (1) , 847-860

8. Authors' Biodata

Rattikan Saelee, Patcharin Emprakhon, Wanisara Meebun, Anchisa Thawornchaiying, Aphinya Wongwai and Kamolrat Khamya are English major undergraduate students studying in English Program, Department of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University.

Dr. Khwanchanok Suebsook is currently the Head of Department of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University. Her research interest include English language teaching, language testing and assessment, teacher development and World Englishes.

Investigating Factors Causing Anxiety in Speaking English of Thai University Students: The Case of Students in English Program at HCU

Nattapon Kaewchoom, Siripreeya Thamthangsath, Tunteera Langu, Niramol Rungsang,
Chanita Meejit, Pongpatchara Kawinkoonset*, Khwanchanok Suebsook
Faculty of Liberal Arts, Huachiew Chalermprakiet University
*Email : fai_pimol@hotmail.com

Abstract

This study aimed to investigate the factors contributing to students' anxiety in speaking English and the types of communicative situations that the students experienced anxiety. Thirty third-year undergraduate students studying in English Program, Huachiew Chalermprakiet University participated in the study. Student Questionnaire with closed-ended questions were used to collect the quantitative data. The findings revealed that the participants perceived limited vocabulary knowledge of students as the main factor of their anxiety in speaking English. Other important sources of anxiety were speaking English with peers and other interlocutors, losing confidence when making mistake and worry about bad English accents. The findings also reveal that the participants experienced varied degree of anxiety when getting involved in different communicative situations. The most anxious situation was when they are expected to respond and could not escape from communication. Making English presentations in classrooms and speaking English with no preparation were also the situations they felt anxious at a high level. In students' perceptions, when speaking with native speakers of English and losing confidence because of making mistakes in speaking were the situations the students were anxious at a moderate level. Pedagogical implications and conclusion are discussed in this paper.

Keywords : students' anxiety, anxiety in speaking English, factors, student perceptions, undergraduate students,

1. Introduction

English has been the world's most widely used language and remained a crucial component in global communication, business, and education. It is not surprising that students around the world study English as a second or foreign language to enhance their employment opportunities and academic and professional achievements. In Thai educational context, many required and optional English courses and programs are offered to Thai students at all educational levels ranging from kindergarten to higher education. English language teachers whether native English speakers or ESL / EFL teachers have been recruited. In English classroom, many teachers have attempted to encourage students to communicate in English. However, despite many years of English study, many students have struggled with speaking English. They perceived anxiety as one major issue that plays a significant role in English language learning and students' English speaking skills. In the study of Kitano (2001), it was found that many Thai students have fear and anxiety when using English in their daily lives, and this further inhibits their ability to communicate effectively. In the context of Huachiew Chalermprakiet University, the third-year students studying in English Program have faced anxiety in speaking in English. Arising from various factors such as lack of vocabulary knowledge, lack of confidence, fear of making mistakes, unrealistic expectations, negative

experiences, students' anxiety has become an obstacle which impedes the process of learning and students' development of speaking skills.

Horwitz, Horwitz, and Cope (1986) well-known scholars in second language anxiety, define foreign language anxiety (FLA) as “a distinct complex of self-perceptions, beliefs, feelings, and behaviors arising from the uniqueness of the language learning process” (p. 31). They proposed that FLA is a situational specific anxiety arisen from the uniqueness of formal learning of a foreign language learning. According to Horwitz et al. (1986), FLA consists of three components, namely communication apprehension, test anxiety and fear of negative evaluation. Communication apprehension refers to “a type of shyness characterized by fear of communicating with people” (p. 127), manifested in difficulty in speaking in groups, stage fright or difficulty in understanding spoken texts. Another component is test anxiety, which is “a type of performance anxiety arising from a fear of failure” (p. 127-128). Learners' unrealistic demands or expectations on themselves and oral tests are potential sources of test anxiety. Fear of negative evaluation is defined as a person's apprehension about being negatively evaluated by others, avoidance of negative evaluative situations (Horwitz et al, 1986). In their study, Foreign Language Classroom Anxiety Scale (FLCAS) was used to measure students' reactions to FLA variables. Based on the findings, Horwitz et al (1986) suggest that many students faced foreign language anxiety in several aspects of foreign language learning and that foreign language anxiety is a common phenomenon for students to experience in foreign language classrooms.

The existing literature on second and foreign language teaching and learning has affirmed the significant roles of anxiety it plays in impeding foreign language learning and achievement and causing students' lack of verbal responses in classrooms. Horwitz, & Young (1991) explain that foreign language anxiety occur when students have to perform tasks in a language that is not their own. “Because complex and nonspontaneous mental operations are required in order to communicate at all, any performance in the second or foreign language is likely to challenge an individual's self-concept as a competent communicator and lead to reticence, self-consciousness, fear or even panic” (Horwitz et al., 1986, p. 31). Many researchers report that English speaking anxiety is often problematic among English language learners. Anxiety in speaking English can impede the process of student learning, affect academic achievement and decrease student motivation in speaking English. For instance, Zhang (2019) found that Chinese university students often face anxiety and lack confidence in speaking English. These can negatively affect their academic and professional success. Similarly, Hu, & Hsu (2020) discovered that Taiwanese high school students frequently experience anxiety and embarrassment when speaking English in front of their peers. This can lead to lack of class participation and communication apprehension.

In the past two decades, a number of studies investigated factors affecting speaking skills of students at different educational levels in Thailand and other EFL countries (i.e. Akkakoson, 2016; Kammungkun, Jhanasanti, Varasay, & Wowong, 2020; Kammungkun, & Wowong, 2019; Lerttawisub, 2014; Sultana, & Jamin, 2021). These previous studies are varied in their research focus, context of study, groups of participants, methods of data collection and research instruments. Lerttawisub (2014) investigated the causes of English-speaking anxiety of high school students in the EFL classrooms and the degrees of anxiety. The researcher used the Foreign Language Classroom Anxiety Scale and the Test Anxiety Scale adapted from those used in Horwitz et al's (1986) study to measure the causes and the degree of anxiety. The participants were 86 Thai junior high school students in Kanchanaburi province. The finding showed that the degree of anxiety was at a moderate level. The sources of anxiety were the participants'

perceptions. Therefore, the students' English-speaking anxiety needs to be solved, and one possible way is by creating a positive classroom atmosphere.

Akkakoson (2016) investigated the levels of speaking-in-class anxiety among students in the English Conversation courses. This study also investigated the student's attitudes towards speaking in English Conversation classrooms and the sources of in-class anxiety. Using the quantitative and qualitative methods, the researcher collected the data through questionnaires and semi-structured interviews. The questionnaire respondents were 282 undergraduate students. Based on the findings, overall, the students experienced English-speaking anxiety at a moderate level. It was concluded that Thai university students in the study are moderately anxious about oral communication in English. Fear of negative evaluation and test-anxiety were the main factors causing English-speaking anxiety among the participants (Akkakoson, 2016).

With a different focus and scope of the study, Sultana and Jamin (2021) conducted research to determine the situations that cause fear to act as a barrier while speaking in English and to investigate the reasons for students' fear. Using the quantitative research method, the researchers used questionnaires to collect the data from 40 undergraduates studying in English Department at a university in Bangladesh. The findings showed that fear plays a role as a barrier to improve English speaking. Owing to their fear the participants did not have enough opportunity to practice English speaking. Most of them, therefore, are afraid of giving speech or making presentations in front of the audience. They become nervous while speaking as they were afraid of receiving negative criticisms. In this study, it is concluded that fear of being laughed at or mocked by others are the most significant barrier to improvement of student speaking skills.

Recently, Kammungkun et al. (2020) studied English speaking anxiety among the first-year students at Mahamakut Buddhist University. The participants were 92 the first year students studying in English major program, Faculty of Humanity and Faculty of Education, Mahamakut Buddhist University. The questionnaires were used to collect the quantitative data. The findings of this study were presented in the following: The students had anxiety in speaking English at a moderate level. The three main factors triggering the anxiety among students were speaking English with no preparation, fear of not passing the English Speaking courses and unfamiliar classroom activities.

Based on the findings of previous studies, anxiety in speaking English among students has been caused by several factors. It is important to note that the studies reported different main factors indicating that the sources of anxiety were context-specific. With different research focus and scope, context of study, participants, methods of data collection and research instruments, the findings from previous studies yield context-specific and inconclusive results. Yet, as students' anxiety in speaking English is non-static psychological state depending on intervening factors which can vary from context to context (Horwitz et al., 1986 as cited in Akkakoson, 2016), further investigation on the factors contributing to the anxiety of English major undergraduates in the HCU context is needed.

2. Objectives of the study

This study aimed to investigate the factors causing anxiety in speaking English among EFL students. It also aimed to investigate types of communicative situations that the students experience anxiety and the degree of anxiety.

Research questions of the study

1. What are the factors causing students' anxiety in speaking English?
2. What types of communicative situations do the students face anxiety in speaking English? And what is the degree of anxiety in each situation?

3. Research Methodology

This study investigated the factors causing anxiety in speaking English and the types of communicative situations the students experience anxiety. With a quantitative research method, the researchers used Student Questionnaire for collecting the data. The Student Questionnaire was designed to survey students' perceptions of the factors causing anxiety in speaking English and the types of communicative situations they encountered anxiety. The questionnaire was online questionnaire on Google Form consisting of 3 parts. Part 1 contains 5 items eliciting demographic information of the participants: gender, age, year of study, frequency of speaking English. In Part 2, 5 closed-ended statements with the 5 Likert rating scale (strongly agree =1 to strongly disagree =5) were used to investigate students' perceptions of the factors of anxiety. In Part 3, 10 closed-ended questions with the 5 Likert rating scale (strongly agree =1 to strongly disagree =5) were used to survey the types of communicative situations the students experience anxiety and the degree of anxiety in each situation.

The participants of the survey were thirty third-year undergraduate students studying in English major, English Program, Faculty of Liberal Arts, Huachiew Chalermprakiet University. The participants were randomly selected and they were homogeneous in experiences of studying English courses. They were voluntary to participate in this study. The researchers collected the data in the the first semester of the academic year 2022. The researchers distributed the Student Questionnaire to the participants by sending the QR code and the link of the questionnaire to the target group. After the questionnaire administration, the researchers analyzed the quantitative data from the participants' rating responses using descriptive statistics. The percentages, means and standard deviations were calculated in order to answer the research questions.

4. Results

The quantitative results obtained from the questionnaires were analyzed for the percentages, means and standard deviations. To answer the research questions, the results were presented in the following order: the demographic information of the participants, the factors caused students' in speaking English, the communicative situations the students experienced anxiety in speaking English and the students' motivational factors of speaking English.

The demographic information of the participants obtained from the questionnaire were presented in Table 1.

Table 1 Demographic information of the participants

Gender	N & Frequency of Speaking English		N
Percent		&Percent	
Male	8 (26.6%)	Never	3 (10%)
Female	22	Rarely	5
(73.3%)		(16.66%)	
Age	N &	Sometimes	14 (46.6%)

Gender Percent	N & Frequency of Speaking English &Percent	N
18-20 years old (26.6%)	8 Often	5 (16.6%)
21-23 years old (73.3%)	22 Always	3 (10%)
Over 25	0 (0%)	

4.1 The factors caused anxiety in speaking English among the students

As shown in Table 2, the factors causing students' anxiety in speaking English were varied in degrees. The participants perceived that limited vocabulary knowledge was the main factor of their anxiety in speaking English. With the highest mean score of 3.73 (SD = 1.1), the statement "I have limited vocabulary" was rated as the highly significant factor. In their perceptions, speaking English with their peers and other interlocutors and losing confidence when making mistakes were also two important factors of their anxiety.

The statements "It's difficult for me to speak English with friends or another person" and "I lose my confidence when I make a mistake in speaking English" were rated as moderately significant factors with the same mean scores of 3.46 (SD= 0.95, SD=1.21) respectively. Meanwhile, worry about speaking with bad English accents and worry about speaking English in daily life were perceived as moderately significant factors, with the mean score of 3.35 (SD= 1.06) and of 3.31 (SD= 1.12) respectively.

Table 2 Percentages, means, standard deviations of factors causing students' anxiety in speaking English

Statement about sources / factors of anxiety	Percentage (%)					Mean	S.D
	5	4	3	2	1		
1. I worry to speak English in daily life.	11.55	38.46	26.92	15.38	7.69	3.31	1.12
2. I have limited vocabulary.	15.38	57.69	19.24	0	7.69	3.73	1.1
3. My English accent is quite bad.	15.38	26.92	38.46	15.38	3.86	3.35	1.06
4. It's difficult for me to speak English with friends or another person.	11.54	38.46	38.46	7.69	3.85	3.46	0.95
5. I lose my confidence when I make a mistake in speaking English.	15.38	50	7.69	19.24	7.69	3.46	1.21
Overall						3.46	1.07

4.2 The communicative situations the students experience anxiety in speaking English and the degree of anxiety

As shown in Table 3, overall, the participants experienced anxiety at different degrees ranging from moderate to high levels in these communicative situations. With the highest mean

of 3.73 (SD= 1.0), the most anxious situation was when “they were expected to respond and could not escape from conversation”. Making presentations in classrooms and speaking English in unprepared situations were rated as the second and the third highly anxious situations. The statements “I feel anxious to speak English in making presentation and answering questions in the classroom” and “I feel anxious to do impromptu speaking with no preparation.” had the high means of 3.58 and 3.5 (SD=1.1, SD =1.17) respectively. Speaking with native speakers of English and losing confidence when making mistakes were perceived as anxious communicative situations at a moderate level, with the same mean score of 3.46 (SD=1.03, SD=1.17) respectively.

Table 3 Percentages, means, standard deviations of communicative situations the students experienced anxiety in speaking English

Communicative situations	Percentage (%)					Mean	S.D
	5	4	3	2	1		
1. I feel anxious to speak English in making presentations and answering questions in the classroom.	19.23	42.31	19.23	15.38	3.85	3.58	1.1
2. I feel anxious to speak English with native speakers.	11.53	42.31	34.62	3.85	7.69	3.46	1.03
3. I feel anxious and lose my confidence to speak English when I make a mistake in speaking English.	15.39	46.16	15.38	15.38	7.69	3.46	1.17
4. I feel anxious to speak English in the situation I am expected to respond and could not escape from communication.	19.23	50	19.23	7.69	3.85	3.73	1.002
5. I feel anxious to do impromptu speaking with no preparation.	15.38	46.15	23.08	3.85	11.54	3.5	1.17
Overall						3.55	1.09

5. Discussions

5.1 What are the factors causing students' anxiety in speaking English?

The findings on the factors causing students' anxiety in speaking English reveal that limited vocabulary knowledge of students was the main factor of their anxiety in speaking English. Other important factors of their anxiety were speaking English with their peers and other interlocutors, losing confidence when making mistake, worry about speaking with bad English accents and worry about speaking English in daily life. These findings are in line with the findings of Kamungkun et al. (2019) which found that the students were anxious to speak due to their problems of vocabulary, accents and lack of confidence. Besides, the students became

most anxious when students have to speak in unpredictable and forceful situations such as when speaking English in their daily lives. Similarly, Khongsamruai et al. (2018) reported that fear of making grammatical mistake and fear of being laughed by classmates when saying something wrong are important factors that lead to English speaking anxiety.

5.2 What types of communicative situations do the students face anxiety in speaking English? And what is the degree of anxiety in each situation?

The quantitative results showed that the students coped with varied degree of anxiety when getting involved in different communicative situations. The participants felt anxious at the highest level in the situation that they were expected to respond and could not escape from conversation. Making presentations in classrooms and speaking English in unprepared situations were perceived as the second and the third highly anxious situations. In students' perceptions, speaking with native speakers of English and losing confidence when making mistakes in speaking were the communicative situations the students felt anxious at a moderate level.

From the perspectives of English language teachers, when considering the communicative situations students faced anxiety, it can be explained that worries and anxiety were triggered when they need to speak English without any preparation. As the students learn English as a second or foreign language and their native language is not English, they fear of saying something wrong, fear of losing face, become nervous when speaking in front of audience and lack confidence. This is consistent with the findings of Kitano's (2001) research which found that students were nervous in speaking a second language. Students had a high level of individual concerns. They became excited, worried and stressed when speaking English (Kitano K., 2001).

In this study, the findings on the factors causing students' anxiety in speaking English and the types of communicative situations the students experienced anxiety can be a basis information for helping students overcome their anxiety. As the main source of anxiety was from students' limited vocabulary knowledge. Language teachers should consider providing explicit or implicit instructions and learning activities to help students expand their vocabulary. In addition, teachers should encourage students to speak English and promote classroom interaction between teachers and students and among students. With more opportunities to interact with peers and teachers in English, students can develop their speaking fluency and be more confident in speaking. It is also important to provide relaxing learning atmosphere in the classrooms so that students would sense a safe learning environment. By promoting classroom interaction and creating a relaxing atmosphere, it can help establish good student- teacher and student-student relationships. When speaking English in class with their teachers and peers in relaxing learning atmosphere, students may become more relaxed and do not feel uncomfortable when making mistakes.

6. Limitations, Recommendations for further studies and Conclusion

6.1 Limitations and Recommendations for further studies

Due to the time constraint, the number of participants participated in this study is limited and only questionnaire was used for quantitative data collection. These limitations have resulted in the generalizability of research findings. Thus, a large sample size and broader scope of participants' areas of study is suggested for further study. With broader scope of participants, the research results may bring more useful implications. Qualitative instruments should be included so that it allows the researchers to gain more in-depth information and triangulate the data.

6.2 Conclusion

This study investigated the factors contributing to students' anxiety in speaking English and the types of communicative situations that the students experienced anxiety. Thirty third-year undergraduate students studying in English Program, Huachiew Chalemprakiet University participated in the study. Student Questionnaire with closed-ended questions were used to collect the quantitative data. The findings revealed that the participants perceived that limited vocabulary knowledge of students was the main factor of their anxiety in speaking English. Other important sources of anxiety were speaking English with their peers and other interlocutors, losing confidence when making mistake, worry about speaking with bad English accents and worry about speaking English in daily life. The findings also reveal that the participants experienced with varied degree of anxiety when getting involved in different communicative situations. The most anxious situation for the participants was when they were expected to respond and could not escape from conversation. When making presentations in classrooms and speaking English with no preparation were also the situations they felt anxious at a high level. In students' perceptions, when speaking with native speakers of English and losing confidence because of making mistakes in speaking were the situations the students felt anxious at a moderate level.

7. References

- Akkakoson, S. (2016). Speaking anxiety in English conversation classrooms among Thai students. *Malaysian Journal of Learning and Instruction*, 13(1), 63-82. Retrieved August 30, 2021 from <https://doi.org/10.32890/mjli2016.13.1.4>
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal*, 70(2), 125–132. <https://doi.org/10.2307/327317>
- Horwitz, E. K. & Young, D. J. (1991). *Language Anxiety: From Theory and Research to Classroom Implications*. Englewood Cliffs, NJ: Prentice Hall.
- Hu, T.C. & Hsu, Y. J. (2020). Effects of a remedial program on beginner-level, low-achieving EFL learners. *Bull Educ. Psychol*, 51, 686-711.
- Kammungkun, P., Jansanti, P., Varasya, P., Wowong, S. (2020). Anxiety for speaking English among first year students in Mahamakut Buddhist University lanna campus. *Journal of MCU Nakhondhat*, 6(10), 5860-5875. Retrieved August 30, 2021 from <https://so03.tci-thaijo.org/index.php/JMND/article/view/227493>
- Kammungkun, P., & Wowong, S. (2019) Anxiety for Speaking English among first year students in Mahamakut Buddhist University Alanna Campus, Vol.65. Retrieved August 30, 2021 from <https://so03.tci-thaijo.org/index.php/JMND/article/download/227493/162319/805506>
- Kitano, K. (2001). Anxiety in the college Japanese language classroom. *The Modern Language Journal*, 85(4), 549-566. <https://www.jstor.org/stable/1193075>
- Lerttawisub, P. (2014). English speaking anxiety of Thai junior high school students in Kanchaburi Province. Unpublished master's thesis, Thammasart University, Bangkok, Thailand. Retrieved August 30, 2021 from https://digital.library.tu.ac.th/tu_dc/frontend/Info/item/dc:98524

Sultana, N., & Jamin, B. (2021). Overcoming Fear to Improve English Speaking Skill. *International Journal of Research and Innovation in Social Science*, 7(5), 17-27. <https://doi.org/10.47772/IJRISS.2021.51202>

Zhang, X. (2019). Exploring the relationship between college students' writing anxiety and the pedagogical use of online resources. *International Journal of Educational Technology in Higher Education*, 16(1), 1-18.

8. Authors' Biodata

Nattapon Kaewchoom, Siripreeya Thamthangsathuntee, Niramol Rungsang, and Chanita Meejit are undergraduate students studying in English Program, Department of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University.

Dr. Pongpatchara Kawinkoonset is currently the Chair of English Program, Department of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University. Her research interests include developing English Language Skills, online language learning, develop English writing ability and development of e-Reading.

Dr. Khwanchanok Suebsook is currently the Head of Department of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University. Her research interests include English language teaching, language testing and assessment, teacher development and World Englishes.

The Prevalence of Cyberbullying Perpetration and Victimization among Undergraduate English Major Students

Napatsorn Sriduang¹, Chulatip Yaothaisong¹, Wanaree Mangrueng¹, Thanyarat Khotsuwan¹,
Worada Khuntong¹, Suwat Pienpanichskul², Suphatha Rachayon^{1*}

¹ Faculty of Liberal Arts, Huachiew Chalermprakiet University

² College of Chinese Studies, Huachiew Chalermprakiet University

* Email : a_hoongy@hotmail.com

Abstract

Cyberbullying has emerged as a significant issue in Thailand, with several studies reporting high rates of cyberbullying victimization and perpetration among university students. However, research investigating the prevalence of cyberbullying within specific academic departments or disciplines is limited. This study aimed to address this gap by examining the prevalence of cyberbullying among undergraduate English major students, while also identifying the factors contributing to cyberbullying. Using a mixed-method approach, a survey research design was adopted, with 51 English major students from a private university randomly selected as participants. Quantitative data was collected using a close-ended questionnaire, while qualitative data were obtained through semi-structured interviews. Results revealed that the majority of participants had not engaged in cyberbullying, either as perpetrators or victims. However, 9.80% of participants admitted to bullying others, while 7.84% reported being bullied on social media. Understanding and perception of cyberbullying varied among participants, with some unaware that they had been involved in certain types of cyberbullying. The most common forms of cyberbullying reported were posting rude comments, spreading false information online, and making fun of others' English accents. Gender differences were also found to play a significant role in cyberbullying perpetration and victimization, with females more likely to be bullied online and LGBTQ individuals being more susceptible to being targeted. The findings contribute to the understanding of cyberbullying among English major students and emphasize the importance of educating students about cyberbullying and its various forms and promoting healthy online behavior to mitigate the harmful effects of cyberbullying.

Keywords : Cyberbullying, Prevalence, Causal Factors, English major Students

1. Introduction

Cyberbullying is a worldwide problem that has garnered attention from researchers, policymakers, and the public. According to a global study conducted by UNESCO, approximately one-third of students aged 13 to 15 have experienced bullying, either in person or online (UNESCO, 2018). Moreover, research shows that cyberbullying is not limited to a particular region or culture but is a global phenomenon that affects young people worldwide (Kowalski et al., 2014). For instance, a study conducted in Nigeria found that approximately 42% of secondary school students had experienced cyberbullying (Olawoyin et al., 2016). Similarly, in China, research has shown that cyberbullying is prevalent among Chinese adolescents, with approximately 23% reporting having been victimized (Li et al., 2019). In another study conducted in Korea, cyberbullying victimization rates were found to be around 20% (Hong and Espelage, 2012). Furthermore, in the United States, research indicates that approximately 37% of students aged 12 to 18 have experienced cyberbullying (Bauman et al.,

2013). Additionally, studies conducted in Europe have found that cyberbullying is a prevalent problem, with victimization rates ranging from 4.4% to 34.4% depending on the country (Smith et al., 2008; Erdur-Baker, 2010; Baldry et al., 2015).

Cyberbullying is also a significant problem in Thailand, with studies reporting high rates of cyberbullying perpetration and victimization among Thai youth. According to a study by Saengcharoensap and Rujiprak (2021), 12.5% of Thai university students had engaged in cyberbullying, while 23.3% had been victimized. The most common forms of cyberbullying reported were name-calling, spreading rumors, and exclusion from online groups. Another study by Samoh et al. (2019) surveying Thai university students also found that 44.4% had experienced cyberbullying at some point, with the most common types being insults, rumors, and threats. The study also found that students who had experienced cyberbullying were more likely to report symptoms of depression and anxiety. Furthermore, Saengcharoensap et al. (2019) found that cyberbullying victimization was associated with lower academic performance and lower levels of self-esteem among Thai university students. The study also found that students who had experienced cyberbullying were more likely to engage in risky behaviors such as substance use. The prevalence of cyberbullying among university students is concerning because it can have serious negative consequences for victims, such as depression, anxiety, and social isolation (Kowalski et al., 2012; Hinduja and Patchin, 2015). Furthermore, cyberbullying can also lead to academic problems, such as decreased motivation and lower academic performance (Beran and Li, 2005).

While there are many studies exploring the prevalence of cyberbullying among university students, most of these studies have been done with university students in general. There is a lack of studies examining the prevalence of cyberbullying within specific academic departments or disciplines. Also, few studies have examined whether certain departments or majors may be more susceptible to cyberbullying or experience different types of cyberbullying. Thus, this study aims to examine the prevalence of cyberbullying perpetration and victimization among undergraduate English major students, as well as to identify the factors that contribute to cyberbullying among this population. The researchers hope that the results of this study will help understand the types of cyberbullying experienced by English major students, which then can inform the development of discipline-specific prevention and intervention strategies. Moreover, identifying the factors that contribute to cyberbullying in specific academic contexts can inform the development of policies and practices to prevent and respond to cyberbullying in higher education institutions.

2. Literature Review

Definition of cyberbullying

According to the U.S. Department of Health and Human Services (2020), cyberbullying is defined as "bullying that takes place on digital devices. It can happen through SMS, text messages, apps, or online on social media, forums, or gaming where people can view, participate in, or share content. It includes sending, posting, or sharing negative, harmful, false, or mean content about someone else. It can include sharing personal or private information about someone else causing embarrassment or humiliation. Some cyberbullying crosses the line into unlawful or criminal behavior."

Schultze-Krumbholz and Scheithauer (2013) define cyberbullying as "repeated aggressive acts that are intentional and involve the use of modern communication media to intentionally harm others who are less powerful than the perpetrator."

Patchin and Hinduja (2015) describe cyberbullying as "a new form of unwanted aggressive behavior that has emerged in recent years through technological devices, primarily smartphones and the internet. It involves the use of digital communication tools to intentionally inflict harm or distress on others."

To conclude, while these definitions may differ in their wording and emphasis, they share these core elements, providing a common understanding of cyberbullying as a form of intentional and repeated aggression using digital communication tools to harm others who are in a less powerful position.

Factors contributing to cyberbullying

Cyberbullying is a complex phenomenon that has been examined through different theoretical frameworks. Two commonly utilized frameworks are the social cognitive theory and the social-ecological model.

First, the social cognitive theory, proposed by Bandura (1977), focuses on how individuals learn and develop behaviors through observation, imitation, and reinforcement. In the context of cyberbullying, this theory suggests that individuals may engage in cyberbullying behavior if they have witnessed or experienced it before, perceive it as effective, and receive positive reinforcement for their actions.

The social-ecological model is another framework that can be used to understand cyberbullying. According to Bronfenbrenner (1979), the model emphasizes the multiple levels of influence on individuals' behaviors, including intrapersonal, interpersonal, institutional, community, and societal factors. It suggests that cyberbullying is influenced by a combination of individual characteristics, relationships with peers and family, school and community environments, and broader cultural norms and values.

To sum up, these frameworks provide valuable insights into the factors contributing to cyberbullying, addressing both cognitive and contextual influences.

3. Objectives

This study aims to examine the prevalence of cyberbullying perpetration and victimization among undergraduate English major students, as well as to identify the factors that contribute to cyberbullying among this population. The study is guided by two research questions:

1. What is the prevalence of cyberbullying perpetration and victimization among undergraduate English major students?
2. What factors contribute to cyberbullying perpetration and victimization among undergraduate English major students?

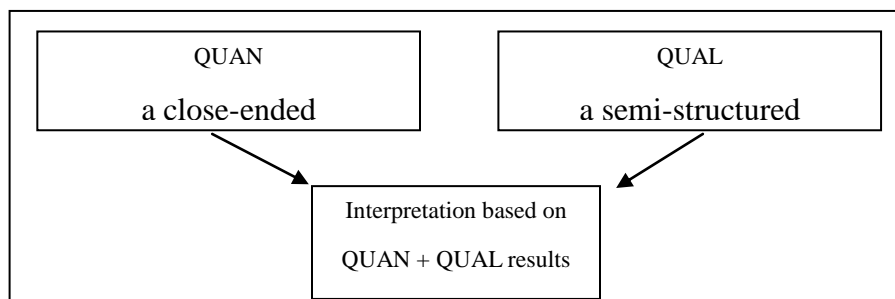
4. Materials and methods

This study adopted a survey research design to investigate both the prevalence and causal factors of cyberbullying perpetration and victimization among undergraduate English major students.

The population of the study was 170 students who were studying English program, at the Faculty of Liberal Arts, at a private university in Samutprakarn. 51 students, including first-year students to fourth-year students, were randomly selected to be the participants in the study.

The data collection and analysis process utilized a mixed methods approach with a concurrent triangulation design, as illustrated in Figure 1.

Figure 1: Research Design



For the quantitative part, the data were collected through a close-ended questionnaire. The questionnaire, which was adapted from Saengcharoensap and Rujiprak (2021) and Hinduja and Patchin (2021), included 4 parts as follows:

- Part 1: Personal Information of the Participants
- Part 2: Cyberbullying Perpetration, comprising 10 questions
- Part 3: Cyberbullying Victimization, comprising 10 questions
- Part 4: Factors Contributing to Cyberbullying Perpetration and Victimization, comprising 6 questions
- Part 5: Additional Comments

For the qualitative part, the semi-structured interview was adopted to collect the data. 15 out of 51 participants were randomly selected. These 15 students were asked for their experiences and opinions toward cyberbullying.

Quantitative data were analyzed using descriptive statistics: frequency, percentage, mean, and standard deviation (SD), while data obtained from the interviews were transcribed and analyzed qualitatively.

5. Results

5.1 Demographic information of the participants

The personal information of the participants including their genders and years of studying in the program is presented in Table 1.

Table 1: Demographic information of the participants

Year of Study	Participants		Male		Female	
	N	%	N	%	N	%
1 st Year	12	23.53	4	7.84	8	15.69
2 nd Year	12	23.53	5	9.80	7	13.73

Year of Study	Participants		Male		Female	
	N	%	N	%	N	%
3 rd Year	12	23.53	4	7.84	8	15.69
4 th Year	15	29.41	7	13.73	8	15.69
TOTAL	51	100.00	20	39.22	31	60.78

Table 1 illustrates that the largest proportion of participants (29.41%) were fourth-year students, while the percentages of first, second, and third-year students were equal at 23.53% each. In terms of gender, 60.78% of the participants identified as female, while 39.22% identified as male.

5.2 The prevalence of cyberbullying perpetration and victimization among undergraduate English major students

In order to answer Research Question 1: *What is the prevalence of cyberbullying perpetration and victimization among undergraduate English major students*, the data collected from the closed-ended questionnaire and the semi-structured interview were analyzed. The findings are presented according to the following topics.

5.2.1 Quantitative findings from the closed-ended questionnaire

5.2.1.1 Prevalence of cyberbullying perpetration among undergraduate English major students

Table 2 presents the results obtained from the closed-ended questionnaire regarding cyberbullying perpetration. The data indicate that a vast majority of participants (90.20%) reported that they had never engaged in cyberbullying on social media. Only five participants (9.80%) admitted to being involved in cyberbullying. Among these participants, four reported that they had bullied others online 1-2 times, while one participant admitted to doing so 3-4 times.

Table 2 The number and percentage of cyberbullying perpetration among undergraduate English major students

Cyberbullying perpetration	Gender	N	Never	1-2 times	3-4 times	5-6 times	> 6 times
			N (%)	N (%)	N (%)	N (%)	N (%)
Having bullied others on a social media platform.	Male	20	17 (33.33)	2 (3.92)	1 (1.96)	0	0
	Female	31	29 (56.86)	2 (3.92)	0	0	0
	TOTAL	51	46 (90.20)	4 (7.84)	1 (1.96)	0	0

Table 3 displays the mean cyberbullying perpetration scores of the participants, indicating how often they engaged in cyberbullying behavior as perpetrators. The data shows that, on average, the participants never engaged in cyberbullying behavior ($\bar{x} = 1.32$, $SD = 0.50$). Moreover, the table provides information on the various types of cyberbullying perpetration, with mean scores for each type ranging from 1.09 to 1.62. The highest mean score is for saying something rude to someone on a social media platform ($\bar{x} = 1.62$, $SD = 0.73$), followed by

posting fake news about others on a social media platform ($\bar{x} = 1.43$, $SD = 0.63$). The lowest mean score, on the other hand, is posting someone's secret things, photos, or videos without his/her permission on a social media platform ($\bar{x} = 1.14$, $SD = 0.35$).

Furthermore, Table 3 presents a comparison of mean scores between male and female participants. The table shows that the mean cyberbullying perpetration scores for male and female participants are equal, at 1.32 ($SD = 0.31$ and 0.53 , respectively). This finding indicates that both male and female participants had never bullied others online. However, both male and female participants admitted that they had engaged in the behavior of saying something rude to someone on a social media platform the most, with mean scores of 1.55 ($SD = 0.69$) and 1.68 ($SD = 0.78$), respectively.

The table also shows that male participants were least involved in making fun of someone's English accent on a social media platform ($\bar{x} = 1.15$, $SD = 0.29$), while female participants were least involved in posting someone's secret things, photos, or videos without his/her permission on a social media platform ($\bar{x} = 1.09$, $SD = 0.37$).

Table 3 The mean scores of cyberbullying perpetration among undergraduate English major students

Cyberbullying perpetration	Male			Female			TOTAL		
	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning
1. I made fun of someone's English accent on a social media platform.	1.15	0.37	Never	1.18	0.39	Never	1.17	0.38	Never
2. I posted mean or hurtful comments about someone's poor English skills on a social media platform.	1.20	0.41	Never	1.27	0.46	Never	1.24	0.43	Never
3. I posted mean or hurtful comments about someone's physical appearance on a social media platform.	1.40	0.68	Never	1.41	0.59	Never	1.40	0.63	Never
4. I criticized others harshly on a social media platform.	1.40	0.50	Never	1.27	0.46	Never	1.33	0.48	Never
5. I said something rude to someone on a social media platform.	1.55	0.69	1-2 times	1.68	0.78	1-2 times	1.62	0.73	1-2 times
7. I intentionally blocked or deleted someone from their social media platform.	1.20	0.41	Never	1.41	0.50	Never	1.31	0.47	Never
8. I posted someone's secret things, photos, or videos without his/her permission on a social media platform.	1.20	0.41	Never	1.09	0.29	Never	1.14	0.35	Never
9. I posted fake news about others on a social media platform.	1.45	0.69	Never	1.41	0.59	Never	1.43	0.63	Never
Overall	1.32	0.31	Never	1.32	0.53	Never	1.32	0.50	Never

5.2.1.2 Prevalence of cyberbullying victimization among undergraduate English major students

Table 4 displays the results obtained from the closed-ended questionnaire on cyberbullying victimization. The data indicate that most participants (92.16%) reported that they had never been bullied online. Only four participants (7.84%) reported being bullied 1-2 times.

Table 4 The number and percentage of cyberbullying victimization among undergraduate English major students

Cyberbullying perpetration	Gender	N	Never	1-2 times	3-4 times	5-6 times	> 6 times
			N (%)	N (%)	N (%)	N (%)	N (%)
Having been bullied on a social media platform.	Male	20	18 (35.29)	2 (3.92)	0	0	0
	Female	31	29 (56.86)	2 (3.92)	0	0	0
	TOTAL	51	47 (92.16)	4 (7.84)	0	0	0

Table 5 The mean scores of cyberbullying victimization among undergraduate English major students

Cyberbullying perpetration	Male			Female			TOTAL		
	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning
1. Someone made fun of my English accent on a social media platform.	1.35	0.49	Never	1.27	0.70	Never	1.31	0.60	Never
2. Someone posted mean or hurtful comments about my poor English skills on a social media platform.	1.50	0.61	1-2 times	1.55	0.74	1-2 times	1.50	0.67	1-2 times
3. Someone posted mean or hurtful comments about my physical appearance on a social media platform.	1.40	0.73	Never	1.55	0.74	1-2 times	1.48	0.74	1-2 times
4. Someone criticized me harshly on a social media platform.	1.40	0.75	Never	1.27	0.70	Never	1.33	0.72	Never
5. Someone said something rude to me on a social media platform.	1.80	0.70	1-2 times	1.77	0.87	1-2 times	1.80	0.78	1-2 times
7. Someone intentionally blocked or deleted me from a social media platform.	1.15	0.48	Never	1.55	0.74	1-2 times	1.36	0.66	Never
8. Someone posted my secret things, photos, or videos without my permission on a social media platform.	1.20	0.51	Never	1.23	0.69	Never	1.21	0.61	Never
9. Someone posted fake news about me on a social media platform.	1.55	0.69	1-2 times	1.59	0.85	1-2 times	1.57	0.77	1-2 times

Cyberbullying perpetration	Male			Female			TOTAL		
	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning
Overall	1.39	0.11	Never	1.43	0.76	Never	1.32	0.50	Never

Table 5 presents the mean scores of cyberbullying victimization experienced by the participants, which indicates how often they had been bullied on social media. The data reveals that, on average, the participants had never been bullied online ($\bar{x} = 1.32$, $SD = 0.50$).

The mean scores for each type range from 1.21 to 1.80. The highest mean score is for being subjected to rude comments on a social media platform ($\bar{x} = 1.80$, $SD = 0.78$), followed by being posted fake news about oneself on a social media platform ($\bar{x} = 1.57$, $SD = 0.77$). The lowest mean score, on the other hand, is for having one's private information, photos, or videos posted without their consent on a social media platform ($\bar{x} = 1.21$, $SD = 0.61$).

Table 5 also presents a comparison of mean scores between male and female participants. It is evident that the mean cyberbullying victimization score for female participants is 1.43 ($SD = 0.76$) while the mean score for male participants is 1.39 ($SD = 0.11$). This finding suggests that cyberbullying victimization is more prevalent among females.

It can also be seen that both male and female participants reported being subjected to rude comments online 1-2 times, with mean scores of 1.80 ($SD = 0.70$) and 1.77 ($SD = 0.87$), respectively. The type of cyberbullying victimization that male and female participants reported being least involved in is having their private information, photos, or videos shared online without their consent, with mean scores of 1.20 ($SD = 0.51$) and 1.23 ($SD = 0.69$), respectively.

5.2.2 Qualitative findings from the semi-structured interview

The participants were asked about their experiences with cyberbullying. The findings revealed that some participants had been involved in cyberbullying both as a bully and as a victim. However, it seems that most participants were not aware that they had engaged in some kind of cyberbullying.

The details are presented according to the following topics:

5.2.2.1 Perception of cyberbullying among the participants

Most participants believed that cyberbullying involved an intentional act that caused serious harm or damage to a person's reputation.

“Actually, when talking about cyberbullying I feel that it should be something more serious, like aggressively fighting with each other on social media... something that causes harm in real life...I just don't think that making fun of my friends is also counted as cyberbullying...” S.4

“I just don't think that what I did, like posting my friend's funny photo on Facebook is cyberbullying... in my opinion, cyberbullying should be something more hurtful.....” S. 2

They also considered the relationship between the individuals involved as an essential factor in determining whether an action was classified as cyberbullying or just harmless joking. The participants were less likely to perceive close friends as cyber bullies.

“My friend took photos of me sleeping and posted them on Instagram.... They painted my face with lipstick, but I was not angry at them... I think they were just having fun...making me laugh...” S. 3

5.2.2.2 Types of cyberbullying experienced by the participants

Some participants said that they had been involved in making fun of others or insulting someone on social media.

“I used to mock my friend’s funny English accent, but I did not mean to hurt her, just having fun with her...” S.2

“I used to tell someone off in the LINE group because she did to me first...”
S.3

Besides, some participants reported that they had shared their friends’ embarrassing photos or videos on social media.

“I used to post funny photos of my friend on social media, but I told her first...” S.2

“I used to take pictures of my friend sleeping in funny ways and post them on social media...” S. 1

Additionally, some participants said that they used to block or exclude someone from group chats.

“I used to unfriend or remove someone on Facebook because I could not put up with their bad behaviors.... I think it is common to do so...” S. 5

Some participants said that they had been bullied in some ways on social media. Some participants revealed that they were mocked or made fun of for their English accents.

“I used to be made fun of for my accent. I think they don’t like me, so they made fun of me..... and I also heard someone gossiping about my English accent, saying that they didn’t understand what I am talking...” S.5

“I had been made fun of for my accent and that made me lose my self-confidence...”
S. 4

Besides, some participants reported that their friends used to post their funny photos or videos on social media.

“My friend used to take photos of me sleeping.... They painted my face with lipstick, but I was not angry at them... I think they were just having fun...it's so funny...” S. 3

5.3 The factors contributing to cyberbullying perpetration and victimization among undergraduate English major students

In order to answer Research Question 2: 2. *What factors contribute to cyberbullying perpetration and victimization among undergraduate English major students?* The data collected from the closed-ended questionnaire and the semi-structured interview were analyzed. The findings are presented according to the following topics.

5.3.1 Quantitative findings from the closed-ended questionnaire

Table 6 presents the factors that contribute to cyberbullying perpetration and victimization among undergraduate English major students.

Table 6 The mean scores of factors contributing to cyberbullying perpetration and victimization among undergraduate English major students

Factors contributing to Cyberbullying	Male			Female			TOTAL		
	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning	\bar{x}	SD	Meaning
1. Gender differences	3.80	1.16	Agree	4.32	1.11	Agree	4.06	1.14	Agree
2. Family background differences	2.00	1.43	Disagree	2.32	1.46	Disagree	2.16	1.45	Disagree
3. Social media addiction	3.41	1.33	Neutral	3.35	1.46	Neutral	3.38	1.40	Neutral
4. Anonymity in cyberspace	3.50	1.28	Agree	3.50	1.35	Agree	3.50	1.32	Agree
5. Insufficient cyberbullying laws	3.80	1.16	Agree	4.32	1.11	Agree	4.06	1.14	Agree
6. Degree of self-esteem	3.95	1.15	Agree	4.09	1.15	Agree	4.02	1.15	Agree

Table 6 illustrates that, on average, participants rated gender differences and inadequate cyberbullying laws as the primary factors for cyberbullying, with an average score of 4.06 (SD = 1.14). Conversely, family background differences had the lowest impact on cyberbullying, as indicated by a mean score of 2.16 (SD = 1.45).

Additionally, the data shows that male participants considered self-esteem to be the most crucial factor for cyberbullying ($\bar{x} = 3.95$, SD = 1.15), while family background differences were the least important ($\bar{x} = 2.00$, SD = 1.43). Among female participants, both gender differences and inadequate cyberbullying laws were equally rated as the primary cyberbullying factors, with an average score of 4.32 (SD = 1.11). Similar to male participants, females also rated family background differences as having the lowest impact on cyberbullying ($\bar{x} = 2.32$, SD = 1.46).

5.3.2 Qualitative findings from the interview

The participants were asked about their opinions about the factors that contribute to cyberbullying, both in terms of perpetration and victimization. The results are classified according to the following topics.

5.3.2.1 Consequences of offline incidents

The participants indicated that the majority of cyberbullying perpetration and victimization stems from prior offline incidents. Both bullies and victims often harbor negative feelings towards each other in real life, and then use cyberspace as a means of retaliation.

“So, when we were working on assignments together, I had some issues with some of my classmates. And then, she went and told other people in our LINE group about me, which made them feel negative towards me...” S. 10

“I used to snap pics of my friend snoozing in funny poses and share them on social media. I did it to get back at her because she had done the same to me...” S. 1

“...what happened was that I was really angry at someone for something she did to me, and I ended up posting something rude about her on Facebook. I just wanted to vent and tell other people about what had happened. I thought that posting it could help me calm down and feel better...” S. 4

“I used to be made fun of for my accent. I think they don't like me, so they made fun of me...” S. 5

5.3.2.2 Gender differences

The participants thought that gender was the key factor causing cyberbullying perpetration and victimization. Most participants believed that females are more likely than males to engage in cyberbullying victimization. They also thought that LGBTQ community is more susceptible to bullying than cisgender males or females.

“I think LGBTQ are the group of people that are made fun of the most.....” S. 7

“Well, in my opinion, women are more likely to be targets of cyberbullying compared to men. This might be because they use social media more often than men do, such as posting more pictures and stuff like that.” S. 5

5.3.2.3 Anonymity of cyberspace

The participants believed that the anonymity of cyberspace encourages people to engage in cyberbullying. This anonymity allows individuals to express opinions about specific targets that they might not be able to do in real life.

“I feel like sometimes we share our thoughts or comments about someone without really considering the consequences because we think that no one will know that it was us who said it. But if it were in real life, we might not say those things....” S. 7

6. Discussion

In this study, the prevalence and causal factors of cyberbullying perpetration among undergraduate English major students were examined based on the quantitative and qualitative data collected from the close-ended questionnaire and the semi-structured interview. The quantitative findings from the questionnaire revealed that the majority of participants had never engaged in cyberbullying, either as a perpetrator or a victim. However, the qualitative findings indicated that some participants were unaware of their involvement in cyberbullying, and perceptions of cyberbullying varied among the participants. Types of cyberbullying reported included posting rude comments about someone, making fun of others, sharing embarrassing photos or videos, and exclusion from group chats. Factors contributing to cyberbullying were analyzed, with gender differences and inadequate cyberbullying laws rated as primary factors. Offline incidents, gender differences, and the anonymity of cyberspace were identified as influential factors in cyberbullying perpetration and victimization. The results are discussed as follows.

First, although the data from the close-ended questionnaire showed that a vast majority of the participants had never engaged in cyberbullying, either as a perpetrator or a victim, there were a number of participants involved in bullying on a social media platform. That is, about 10% of the participants admitted that they had bullied others online and about 8% reported that they had been bullied by others on social media sites. The findings of this study are in line with those from other previous studies, in which the researchers found a significant number of undergraduate students or youth were involved in cyberbullying behavior (Finn, 2004; Dilmac 2009; MacDonald and Roberts-Pittman, 2010; Pena, 2011; Zalaquett and Chatters, 2014; Chinpong, 2018; Vitto, 2018; Saengcharoensap and Rujiprak, 2021).

Second, the qualitative data from the interview revealed that there were a number of participants who were unaware that they had been involved in certain types of cyberbullying perpetration or victimization. This is due to the fact that most participants defined cyberbullying not only as an intentional act that caused serious harm or damage to someone's reputation but also as an act that was done by other people, not their close friends. As a result, they did not consider posting embarrassing photos or making fun of their friends' accents or appearances as cyberbullying perpetration. Instead, they viewed these actions as usual matters, joking around with their friends. This is confirmed by the qualitative data from the interview, which showed that the participants were not angry if they were made fun of by their close friends. Moreover, the action was viewed positively, as having fun with friends. On the contrary, if the same action was done by other people, it would be counted as cyberbullying, and that would pose negative effects on them, like making them feel sad or even lose their self-confidence. This finding aligns with previous studies examining Thai youth's perceptions of cyberbullying, including the work of Samoh et al (2019), which found that youth believed that cyberbullying had to cause actual harm or annoyance and be carried out with malicious intent. Furthermore, close friends were typically not regarded as cyber bullies.

Regarding the types of cyberbullying, the study found that the most frequent form of cyberbullying perpetration that the participants had been involved in was posting rude comments about someone online and spreading false information about them on social media. This finding aligns with earlier research (Garaigordobil, 2015; Zhu, 2021) indicating that verbal aggression is the most prevalent form of cyberbullying. One possible explanation for this pattern is that with the ability to remain anonymous online, the participants viewed posting rude comments as a

means of venting their frustration from in-person interactions since they were afraid of doing so in real life.

In addition to posting rude comments about someone, participants also reported instances of cyberbullying where others made fun of them. Through interviews, it was discovered that several participants shared their experiences of being targeted for cyberbullying due to their English accents. These incidents had a negative impact on their self-esteem and made them feel disliked by others. The reason why English accents were frequently targeted in cases of cyberbullying could be attributed to the fact that students learning a second language often aspire to acquire a native-sounding accent, as supported by various studies (Derwing, 2003; McCrocklin and Link, 2016). Consequently, accents become the primary aspect they prioritize when assessing the language proficiency of others. Likewise, studies on speaking anxiety (Price, 1991; Coppinger and Sheridan, 2022) revealed that ESL learners expressed concerns about their pronunciation and the fear of embarrassing themselves in social settings. It appears that this anxiety significantly contributes to the vulnerability of ESL learners to cyberbullying in this context.

Furthermore, it was found in the study that blocking or deleting someone from their online network was rated as the least prevalent cyberbullying behavior among the participants, according to the data from the close-ended questionnaire. However, in the interview, some participants admitted that they did so several times, which is in line with Saengcharoensap and Rujiprak (2021) who found that the majority of the cyberbullies had blocked or deleted one friend or more from their social networks. This might be because some participants believed that blocking or deleting someone from group chats or social media sites was not cyberbullying perpetration. They thought it was common to do so to protect themselves from any upset and even a way to prevent bullying.

Lastly, it was found in this study that gender differences played an important role in cyberbullying perpetration and victimization. Although the study found that the prevalence rates in cyberbullying perpetration between male and female participants were equal, female participants were more likely to be bullied online than their male counterparts. Similarly, the qualitative data show that most participants believed that were more vulnerable to cyberspace victimization compared to males. These findings are consistent with previous studies that have reported a higher prevalence of cyber-victimization among girls (Kawalski et al, 2012; DeHue et al, 2008; Hinduja and Patchin, 2015; Ybarra and Mitchell, 2004; Kwan and Skoric, 2013). Additionally, the study participants also believed that LGBTQ community was more susceptible to being targeted in cyberbullying, which is in line with the findings of Baumeister et al, 2016; Greytak et al, 2013; Mustanski et al, 2010; Rivers, 2011; and Sabella, 2013.

7. Conclusion

This study shed light on the prevalence and causal factors of cyberbullying perpetration among undergraduate English major students using a combination of quantitative and qualitative data. The findings revealed that while a majority of participants had not engaged in cyberbullying, a notable percentage admitted to both perpetrating and experiencing cyberbullying on social media platforms. The qualitative data highlighted a lack of awareness among some participants regarding their involvement in certain types of cyberbullying, particularly when it was carried out by close friends. The most common form of cyberbullying perpetration reported by the participants was posting rude comments about someone online and

spreading false information about them on social media. Participants also shared experiences of cyberbullying related to English accents, indicating the impact of language proficiency and speaking anxiety. Blocking or deleting individuals from online networks was found to be less prevalent, with some participants perceiving it as a protective measure rather than cyberbullying perpetration. Gender differences also played a significant role in cyberbullying perpetration and victimization, with females being more likely to be bullied online and LGBTQ individuals being more susceptible to being targeted in cyberbullying. These findings contributed to the understanding of cyberbullying among English major students, as well as highlighted the importance of educating students about cyberbullying and its various forms and promoting healthy online behavior to mitigate the harmful effects of cyberbullying.

8. References

- Bandura, A. (1977). *Social learning theory*. Prentice-Hall.
- Bauman, S., Toomey, R. B., and Walker, J. L. (2013). Associations among bullying, cyberbullying, and suicide in high school students. *Journal of Adolescence*, 36(2), 341-350.
- Baumeister, A. L., Flores, E., and Chang, F. (2016). Cyberbullying and LGBTQ youth: A systematic literature review and recommendations for prevention and intervention. *Journal of Child and Adolescent Trauma*, 9(4), 353-370.
- Baldry, A. C., Farrington, D. P., and Sorrentino, A. (2015). Cyberbullying in youth: A pattern of disruptive behavior. *Psicologia Clinica dello Sviluppo*, 19(2), 291-308.
- Beran, T. N., and Li, Q. (2005). Cyber-harassment: A study of a new method for an old behavior. *Journal of educational computing research*, 32(3), 265-277.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Chinpong, P. (2018, July 22). อย่าปล่อยให้เด็กถูกกลั่นแกล้งในโลกออนไลน์ (Cyber Bullying). MGR Online. <https://mgronline.com/qol/detail/9610000072697> (in Thai)
- Coppinger, L., and Sheridan, S. (2022). Accent Anxiety: An Exploration of Non-Native Accent as a Source of Speaking Anxiety among English as a Foreign Language (EFL) Students. *Journal for the Psychology of Language Learning*, 4(2), 1-20.
- DeHue, F., Bolman, C., and Völlink, T. (2008). Cyberbullying: Youngsters' experiences and parental perception. *CyberPsychology and Behavior*, 11(2), 217-223.
- Derwing, T. (2003). What do ESL students say about their accents? *The Canadian Modern Language Review*, 59(4), 547-566.
- Dilmac, B. (2009). Psychological needs as a predictor of cyber bullying: A preliminary Report on college students [Electronic Version]. *Educational Sciences: Theory and Practice*, 9(3), 1307-1325.
- Erdur-Baker, O. (2010). Cyberbullying and its correlation to traditional bullying, gender and frequent and risky usage of internet-mediated communication tools. *New Media and Society*, 12(1), 109-125.

- Finn, J. (2004). A survey of online harassment at a university campus [Electronic Version]. *Journal of Interpersonal Violence*, 19(4), 468-481.
- Garaigordobil, M. (2015). Cyberbullying in adolescents and youth in the Basque Country: Prevalence of cybervictims, cyberaggressors, and cyberobservers. *Journal of Youth Studies*, 18(5), 569-582.
- Greytak, E. A., Kosciw, J. G., and Boesen, M. J. (2013). Putting the "T" in "resource": The benefits of LGBT-related school resources for transgender youth. *Journal of LGBT Youth*, 10(1-2), 45-63.
- Hong, J. S., and Espelage, D. L. (2012). A review of research on bullying and peer victimization in school: An ecological system analysis. *Aggression and violent behavior*, 17(4), 311-322.
- Hinduja, S., and Patchin, J. W. (2015). *Bullying beyond the schoolyard: Preventing and responding to cyberbullying*. Corwin Press.
- Hinduja, S., and Patchin, J. W. (2021). Digital dating abuse among a national sample of US youth. *Journal of Interpersonal Violence*, 36(23-24), 11088-11108.
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., and Lattanner, M. R. (2012). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological bulletin*, 138(4), 586.
- Kowalski, R. M., Limber, S. P., and Agatston, P. W. (2014). *Cyberbullying: Bullying in the digital age*. John Wiley and Sons.
- Schultze-Krumbholz, A., and Scheithauer, H. (2013). Is cyberbullying related to lack of empathy and social-emotional problems? *International Journal of Developmental Science*, 7(3-4), 161-166.
- Kwan, G. C. E., and Skoric, M. M. (2013). Facebook bullying: An extension of battles in school. *Computers in Human Behavior*, 29(1), 16-25.
- Li, X., Li, D., and Newman, J. (2019). Cyberbullying in China: prevalences and implications. *Journal of Children and Media*, 13(1), 75-90.
- MacDonald, C. D., and Roberts-Pittman, B. (2010). Cyberbullying among college students: Prevalence and demographic differences. *Procedia-Social and Behavioral Sciences*, 9, 2003-2009.
- McCrocklin, S., and Link, S. (2016). Accent, identity, and a fear of loss?: ESL students' perspectives. *The Canadian Modern Language Review*, 72(1), 122-148. <https://doi.org/10.3138/cmlr.2582>
- Mustanski, B., Garofalo, R., and Emerson, E. M. (2010). Mental health disorders, psychological distress, and suicidality in a diverse sample of lesbian, gay, bisexual, and transgender youths. *American Journal of Public Health*, 100(12), 2426-2432.
- Olawoyin, O. O., Adebayo, A. M., Ogunwale, A., and Adekoya, K. O. (2016). Prevalence and predictors of cyberbullying among secondary school students in Nigeria. *Children and Youth Services Review*, 71, 283-287.

- Patchin, J. W., and Hinduja, S. (2015). Measuring cyberbullying: Implications for research. *Aggression and Violent Behavior, 23*, 69-74.
- Pena, J. (November, 2011). Study finds cyberbullying a problem among college students. Saved the Racks, retrieved from www.alligator.org/news/campus/article_7cb887a0-0902-11e1-8c39-001cc4c03286.html
- Price, M. (1991). The subjective experience of foreign language anxiety: Interviews with high anxious students. In E. Horwitz and D. Young (Eds.)
- Rivers, I. (2011). Recollections of bullying at school and their long-term implications for lesbians, gay men, and bisexuals. *Crisis: The Journal of Crisis Intervention and Suicide Prevention, 32*(6), 320-325.
- Sabella, R. A. (2013). The experiences of lesbian, gay, bisexual, and transgender students in middle and high school. *Journal of LGBT Youth, 10*(1-2), 169-182.
- Saengcharoensap, K., and Rujiprak, V. (2021). Cyberbullying Among University Students in Thailand. *Thammasat Review*.
- Smith, P. K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S., and Tippett, N. (2008). Cyberbullying: its nature and impact in secondary school pupils. *Journal of Child Psychology and Psychiatry, 49*(4), 376-385.
- Samoh, N., Wongsuwan, N., and Somrongthong, R. (2019). Prevalence and consequences of cyberbullying among university students in Thailand. *Journal of Public Health Research, 8*(2), 1660.
- U.S. Department of Health and Human Services (2020). Preventing Bullying. <https://www.stopbullying.gov/cyberbullying/what-is-it>
- UNESCO. (2018). School Violence and Bullying: Global Status Report. UNESCO Publishing.
- Vitto, C. (2018). Prevalence of cyberbullying among university students (A comparison between Philippines and Turkey) (Master's thesis, Sosyal Bilimler Enstitüsü).
- Ybarra, M. L., and Mitchell, K. J. (2004). Youth engaging in online harassment: Associations with caregiver-child relationships, Internet use, and personal characteristics. *Journal of Adolescence, 27*(3), 319-336.
- Zalaquett, C. P., and Chatters, S. J. (2014). Cyberbullying in college: Frequency, characteristics, and practical implications. *Sage Open, 4*(1), 2158244014526721.
- Zhu, C., Huang, S., Evans, R., and Zhang, W. (2021). Cyberbullying among adolescents and children: A comprehensive review of the global situation, risk factors, and preventive measures. *Frontiers in public health, 9*, 634909.

Empowering ESL Teachers with Generative AI

Peter Snashall

Faculty of Liberal Arts, Huachiew Chalermprakiet University

*Email : eslflow@gmail.com

Abstract

This research paper investigates the potential of generative AI technology, specifically large language models (LLMs), in enhancing English as a Second Language (ESL) instruction by offering teachers an innovative tool to create engaging and dynamic classroom activities. In addition to emphasizing the rapid development of LLMs and machine learning in language education, the study also underscores the necessity for teachers to acquire the skill of prompt engineering to harness the full benefits of AI. The methodology combines qualitative and quantitative survey data collected from ESL teachers who evaluated the usefulness and relevance of AI-generated prompts created by advanced LLMs for various ESL exercises, such as role-plays, vocabulary quizzes, and listening tasks. The research also examines the potential benefits and challenges associated with integrating generative AI, including LLMs and machine learning, into language teaching. The survey results reveal a positive response from teachers, indicating that generative AI and LLMs can enhance the quality and variety of ESL activities and save teachers valuable preparation time. By using AI to creatively generate exercises and mastering prompt engineering (writing instructions for AI), teachers can increase student engagement, promote language acquisition, and accommodate diverse topics, learning styles, and proficiency levels. However, concerns regarding the accuracy of AI-generated content are also highlighted, emphasizing the importance of proofreading, critical evaluation and customization of AI-generated materials by teachers. The paper concludes by discussing the implications of these findings for ESL instruction and future research in the field of language education, LLMs, and AI technology. Recommendations are provided for best practices in leveraging generative AI tools, including LLMs, and developing prompt engineering skills to maximize their potential in ESL teaching while mitigating potential risks and challenges. This research contributes to the growing body of literature on the intersection of AI, LLMs, and language education, and its findings hold promise for enhancing the teaching and learning experience in ESL classrooms.

Keywords : generative AI, AI prompts, teacher development, teacher materials, teacher efficiency, prompt engineering

1. Introduction

Teachers are overworked and underpaid, and they have to deal with a lot of administrative paperwork. They also have to prepare for classes with inadequate resources. They have to grade assignments and exams, learn online skills, and attend meetings. Not only that, they have to deal with overcrowded classrooms and/or huge classes online. My thesis is that the new forms of Generative AI emerging now can provide invaluable assistance to teachers. It can help them to create customized courses for specific subjects and topics. It can help teachers to create quizzes and tests that are more effective in assessing student understanding. It can help teachers create interesting teaching materials. All these tasks can be done much more quickly. Consequently, teachers can manage their own time more effectively. In short, AI can help teachers be more creative, more efficient and effective in nearly every task they perform. Teachers who take advantage of AI have the opportunity to become highly valued professionals.

In fact, it is already being suggested that the ability to talk to AI could be the most important skill of the century (Warzel, 2023).

Generative AI is the artificial ability to do certain tasks faster and more efficiently than is possible with human intelligence. The goal of generative AI in education is to provide students with learning experiences that are tailored to their individual needs and abilities. Generative AI can be used by teachers to create customized lesson plans, assess student progress, and provide feedback. The benefits of using Generative AI in education include increased student engagement and motivation, improved academic performance, and reduced workload for teachers. Some potential challenges of using generative AI in education include the potential for bias and discrimination, the need for data privacy and security, and the need for teacher training. Generative AI can be used to improve teaching in the future by providing more personalized and effective instruction, reducing the workload for teachers, and improving communication between teachers and students.

The rapid evolution of artificial intelligence (AI), particularly through generative models such as GPT-4, introduces novel opportunities for educators . However, the path to such empowerment is not without its hurdles. Although AI models have markedly improved in recent years, challenges persist. Lu et al. (2023) underscore the necessity of appreciating not just the capabilities but also the limitations of these models, emphasizing the importance of understanding what prompts they can effectively process. AI's prowess, though impressive, is still marred by various errors, from grammatical and usage inaccuracies, through incoherent responses and self-contradictions, to factual errors and violations of common sense understanding (Dou et al., 2022). Therefore, while leveraging the power of AI in the realm of ESL teaching shows immense promise, critical scrutiny of AI systems and continuous development to overcome their shortcomings are imperative to ensure their reliability and applicability.

2. Objectives

1. Investigate the potential of generative AI technology, specifically large language models (LLMs), in enhancing ESL instruction by providing teachers with a tool to create engaging and dynamic classroom activities.
2. Explore the necessity for ESL teachers to acquire the skill of prompt engineering in order to harness the full benefits of AI-generated content for language education.
3. Analyze qualitative and quantitative survey data from ESL teachers who evaluated the usefulness and relevance of AI-generated prompts created by advanced LLMs for various ESL exercises.
4. Examine the potential benefits and challenges associated with integrating generative AI, including LLMs and machine learning, into language teaching, such as improved engagement, language acquisition, and personalized learning opportunities, as well as accuracy and cultural appropriateness concerns.
5. Evaluate the implications of these findings for ESL instruction, the field of language education, and the future research on LLMs and AI technology, discussing how they may contribute to the enhancement of the teaching and learning experience in ESL classrooms.

6. Provide recommendations for best practices in leveraging generative AI tools, including LLMs, and developing prompt engineering skills to maximize their potential in ESL teaching while mitigating potential risks and challenges.

7. Finally, to answer the research question: How can generative AI technology, specifically large language models, be utilized to empower ESL teachers, and what are the necessary skills, potential benefits, challenges, and best practices associated with integrating this technology into language instruction?

3. Materials and methods

This study aims to investigate the effectiveness of generative AI in empowering ESL teachers by providing them with innovative and useful teaching materials. In order to examine the efficacy of AI-generated prompts in producing valuable teaching resources, we employed a survey-based approach utilizing Google Forms. This section provides a detailed overview of the methodology followed in this research.

1. Participants

The participants in this study were a group of ESL teachers with varying levels of teaching experience, educational backgrounds, and teaching contexts. A total of 5 ESL teachers were randomly selected from an online database of educators to ensure a representative sample. The participants were informed about the purpose of the study and were ensured that their responses would remain confidential and be used solely for research purposes.

2. Materials

Six AI-generated prompts were created using a generative AI model, specifically designed to produce educational resources for ESL teachers. These prompts were designed to cover a range of language skills, including grammar, vocabulary, reading comprehension, and speaking activities. Each prompt was designed/engineered to create a corresponding AI-generated exercise or activity.

3. Survey Design

An online survey was created using Google Forms to collect data from the participants. The survey consisted of three main sections:

a) AI-generated Prompt Evaluation: In this section, participants were asked to evaluate the effectiveness of each of the six AI-generated prompts in producing useful teaching materials. A 10-point Likert scale was used, ranging from 1 (Strongly Disagree) to 10 (Strongly Agree). Participants were also asked to provide qualitative feedback in the form of comments for each prompt, elaborating on their evaluations.

b) Overall Impressions: The final section of the survey asked participants to provide their general thoughts on the potential of generative AI to empower ESL teachers and to suggest any improvements or further research directions.

4. Data Collection

The online survey link was distributed to selected ESL teachers via email, and they were given one week to complete the survey. A follow-up email was sent to remind the participants a week before the deadline. After the data collection period, the responses were exported from Google Forms and analyzed.

5. Data Analysis

Quantitative data from the Likert scale evaluations were analyzed using descriptive statistics to determine the overall effectiveness of the AI-generated prompts. Qualitative feedback from the comments section was analyzed using thematic analysis to identify recurring themes and patterns in the participants' perceptions of the prompts. This combined approach allowed for a more comprehensive understanding of the potential of generative AI in empowering ESL teachers.

4. Results

The survey for the usefulness of AI for teachers consisted of six prompts for ChatGPT (OpenAI). The prompts are an example of prompt engineering. They have been created through acquired AI skills, trial and error testing, and a deep knowledge and experience of the subject area, using OpenAI's ChatGPT-4 (a paid subscription service). Consequently, people who used Chat GPT-3 for the survey would have had inferior results. ChatGPT-4 is a superior application and many of the problems encountered in ChatGPT-3 have been eliminated. Previous research has noted some of the errors that can be found in GPT-3 and sometimes in GPT-4. This can be most easily understood in the infographic below (Dou et al., 2022).

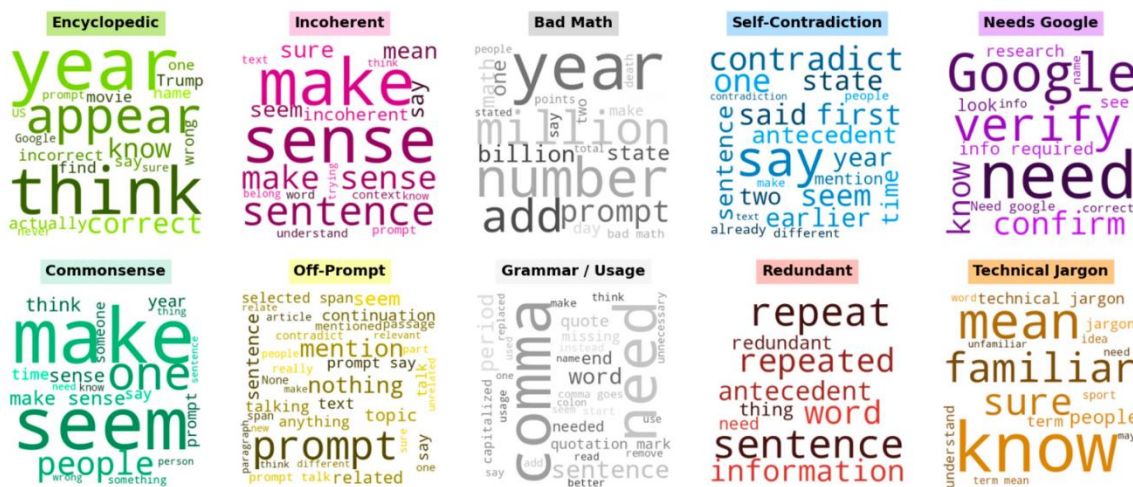


Figure 1: Common unigrams and bi-grams showing error type.

The prompts below were assessed for their usefulness from 1-10 as can be seen in following the charts and comments.

Table 1

	1	2	3	4	5	6	7	8	9	10
Prompt 1: Create a 10 line conversation for making a doctor's appointment between a receptionist and a patient as an English as a second language role play:								✓	✓	✓
Prompt 2: Make a create-your-own conversation exercise with a word bank for English as a second language students studying how to express opinions.							✓✓		✓	

	1	2	3	4	5	6	7	8	9	10
<p>Prompt 3: Create gap fill sentences with multiple choice answers for each of the items below, A/B/C:</p> <ol style="list-style-type: none"> 1. good service 2. pay employees well 3. reduce prices 4. good location 5. provide snacks 6. promotions 7. open 24 hours 						✓	✓		✓	
<p>Prompt 4: Create exercises for English as a second language students studying the topic “taste and nutrition” including: a ranking/prioritizing exercise; an opinion statement agree/disagree exercise exercise; and a sentence starter complete-the-sentence with your own ideas exercise.</p>								✓	✓✓	
<p>Prompt 5: Create exercises for English as a second language students studying the environment including: a classifying exercise; a collocation exercise; and a fill-in-the-blank sentence exercise with a word bank.</p>								✓✓	✓	
<p>Prompt 6: Create an English as a second language conversations skills exercise, with 5 short gap fill conversations with a word bank, between students with different names for English as a second language students studying the topic: making decisions.</p>						✓	✓		✓	

Prompt 1: This prompt achieved a median rating of 9 in the survey, showing that all teachers thought it was impressive. The usefulness of the prompt in Table 1 lies in its focus on a common and essential task, making a doctor's appointment, which students might need to perform in their day-to-day lives. Furthermore, as the conversation is limited to 10 lines, it saves time and allows teachers to efficiently cover multiple topics within a single lesson. This brevity also encourages students to practice and memorize the dialogue, ultimately leading to better retention and application of the language. Overall, this prompt supports the development of functional English skills and promotes language acquisition through contextualized and meaningful practice.

Prompt 2: This prompt achieved a median rating of 8.5 in the survey. It creates an activity that not only encourages students to practice their vocabulary and grammatical skills, but it also encourages critical thinking and self-expression. By engaging in this exercise, students learn to construct sentences and articulate their thoughts effectively, while adapting to different conversational contexts. Additionally, the word bank serves as a valuable resource that helps students enrich their vocabulary and gain familiarity with various expressions used to convey opinions. As ESL teachers aim to develop their students' language proficiency, this exercise promotes active participation, collaboration, and confidence in speaking English, ultimately leading to a more comprehensive and meaningful learning experience.

Prompt 3: Prompt 3 focuses on the creation of multiple choice exercises. This prompt achieved a median rating of 7.6 in the survey. Some teachers weren't as impressed with this prompt. Perhaps, not all teachers like using multiple choice, or perhaps it requires more proofreading and editing. Or perhaps the teachers lack prompt engineering skills. This prompt can be extremely useful for English as a second language (ESL) teachers as it streamlines the process of generating engaging and effective learning materials. By providing an efficient framework for creating multiple exercises (questions or gap fill format), this prompt allows teachers to save valuable time and energy that can be redirected towards tailoring lessons to their students' needs, addressing individual challenges, and cultivating an interactive classroom environment. Additionally, the multiple-choice aspect of this format promotes a deeper understanding of the language, as students are required to not only identify the missing word but also choose the most appropriate option from a set of possibilities. This engages critical thinking and contextual understanding, further enhancing their language acquisition process. Overall, this prompt serves as a practical tool for ESL educators, simplifying the task of crafting educational resources and enabling a more effective learning experience.

Prompt 4: This prompt achieved an impressive median rating of 8.6 in the survey. Prompt 4 serves as an invaluable tool for English as a second language (ESL) teachers, as it provides a formula for the creation of diverse and engaging exercises centered around any topic. By incorporating a ranking/prioritizing exercise, an opinion statement agree/disagree exercise, and a sentence starter complete-the-sentence exercise, this prompt enables instructors to develop a comprehensive lesson plan that simultaneously targets various language skills. As students work through these activities, they have the opportunity to practice reading, writing, speaking, and critical thinking skills, all while expanding their vocabulary and understanding of the topic. Moreover, the prompt's multifaceted nature allows teachers to efficiently generate multiple exercises at once, saving valuable preparation time and ensuring that students receive a well-rounded learning experience.

Prompt 5: This prompt also achieved an impressive median rating of 8.3 in the survey. Prompt 5, which requests the creation of exercises for English as a second language (ESL) students studying a specific topic (the environment, in this case), can be particularly useful for ESL teachers as it adds variety to their lessons. By integrating different types of exercises, such as classifying, collocation, and fill-in-the-blank activities with a word bank, teachers can cater to diverse learning styles and keep students engaged. Furthermore, these exercises promote a well-rounded understanding of the subject matter by focusing on both vocabulary development and context comprehension. Overall, implementing this prompt in the classroom supports a dynamic, comprehensive, and relevant learning experience for ESL students.

Prompt 6: This prompt achieved a median rating of 7.6 in the survey. The rating is a little bit lower, perhaps because of the complexity of the prompt. Most people in the survey were using GPT3. I think more complex prompts require GPT4. This prompt (6) emphasizes the ability of AI to create extremely customized teaching materials. Focusing on conversation skills exercises with gap fill activities, the prompt enables teachers to craft engaging scenarios that reflect authentic interactions between students with different names. This diversity in names promotes inclusivity and helps students identify with the characters in the conversations. The prompt's emphasis on the topic of "making decisions" fosters critical thinking skills and relevant language acquisition, further enhancing the learning experience. By designing exercises that cater to

students' individual linguistic levels and interests, ESL teachers can significantly improve their students' communicative competence and overall language proficiency.

5. Discussion

Artificial intelligence is continuously improving, and the analysis of open-ended generative models such as GPT-4 sheds light on the limitations and strengths of these AI systems. Lu et al. (2023) emphasize the importance of understanding the capabilities of these models by analyzing the prompts they can and cannot handle. By categorizing prompts by their constraints, researchers can create clear bounds on model capabilities, which ultimately contributes to model explainability and points to future directions for improvement.

One example of AI improvement is evident in the transition from GPT-3 to GPT-4. GPT-4 exhibits enhanced performance and capabilities, particularly in tasks such as natural language understanding, text generation, question-answering, summarization, and translation (OpenAI). This improvement is due in part to a larger model size and more diverse training data, as well as better handling of constraints in prompts, such as document-type, structural, stylistic, and subject constraints (Lu et al., 2023).

Despite these improvements, AI models are still prone to errors. Dou et al. (2022) outline various error types found in AI-generated text, such as grammar and usage errors, off-prompt responses, redundancy, self-contradiction, and incoherence. Factual errors, such as bad math, encyclopedic inaccuracies, and violations of commonsense understanding, also persist. These errors reveal the ongoing need for scrutiny and development in AI systems to ensure they provide accurate and coherent information.

Nonetheless, artificial intelligence, particularly in the realm of open-ended generative models like GPT-4, is improving through a more fine-grained understanding of model capabilities and limitations (Lu et al., 2023). This understanding is crucial in driving explainability and providing direction for future advancements in AI technology. While progress has been made, it is important to continue addressing the errors and shortcomings of AI systems to ensure their reliability and usefulness in real-world applications (Dou et al., 2022).

One way of looking at the improvement in AI and large language models can be seen in the growing public awareness of its abilities. For example, Steve Johnson wrote in the *New York Times* in April 2022:

OpenAI's GPT-3 and other neural nets can now write original prose with mind-boggling fluency — a development that could have profound implications for the future.

And in an article in *The Atlantic Magazine*, writer Charlie Warzel discusses how prompt engineering, the skill of writing effective instructions for AI models, is becoming an essential 21st-century skill. Teachers are recognizing the potential of prompt engineering in their classrooms as well. He gives the example of Ethan Mollick, a professor at the University of Pennsylvania, who has adapted his syllabus since the release of ChatGPT to incorporate this skill. He asks his students to imagine ChatGPT as a student and teach it by prompting it to write an essay about a specific class concept. The students must then refine the AI's essay, much like a professor during office hours, until it demonstrates sufficient mastery of the subject. This exercise not only helps students learn by explaining, but it also teaches them the valuable skill of

writing effective prompts. As AI integration in various aspects of life continues to grow, prompt engineering will likely become a crucial skill for teachers and students alike.

Another article demonstrating the rapid advances of AI recently appeared in the technology magazine *Wired* in March 2022. Clive Thompson described the experience of a coder, Aboukhadijeh, when using the AI engine Copilot:

He discovered that it had other impressive tricks; it could even understand commands he wrote in basic English. If he simply typed into his code editor “Write a function that capitalizes every word in a document,” Copilot would assemble that code all by itself. He’d check to make sure it didn’t have errors; sometimes it did.

It is helpful to read technology journalists, coders and computer scientists, to keep up with how AI can help teachers more easily create engaging teaching materials (and assist them in many other tasks). Just as these journalists and coders have been experimenting with using generative AI capabilities for coding and language tasks, it can be used for creating teaching activities.

6. Conclusion

In conclusion, the potential for Generative AI to revolutionize ESL teaching and empower educators is significant, as evidenced by its capabilities in personalization, automation, interaction, and creativity. It provides a unique opportunity to create tailored educational content, enhance student engagement, and reduce administrative burdens on teachers.

However, it is paramount for educators to familiarize themselves with prompt engineering, to harness the potential of AI effectively. This skill will allow them to develop customized and specialized courses, automate various manual processes, quickly respond to student queries, and create diverse teaching materials in various formats. Consequently, educators will be able to cater to the specific needs of specific groups of students, as well as individual students, and ensure that the materials are tailored to their students' abilities. And as AI technology continues to expand its capabilities, teachers will be able to easily incorporate more diverse materials including visual aids, audio and video into their teaching activities. Of course, teachers must also remain vigilant and maintain an active role in the process, proofreading AI-generated content to mitigate inaccuracies or misinformation.

Future research on AI should focus on understanding the technology's ability to generate more diverse and accurate educational content, whilst addressing concerns over data privacy, security, and potential bias. Prompt engineering, is one aspect of AI that will undoubtedly become a focus of a lot of research. Future developments in the area should include training programs to equip teachers with the necessary AI skills, thus creating a future where the power of AI is harnessed efficiently and ethically for the betterment of ESL education. By bridging the gap between technology and pedagogy, we can democratize access to quality language education, enable more inclusive classrooms, and ultimately, create a more globally connected, linguistically diverse society. The fusion of AI and education holds promise, but it must be navigated wisely to ensure that the human element of teaching is preserved, and that educational outcomes are prioritized above all. As we tread this path, the collective goal should be leveraging AI not to replace educators, but to augment their capabilities and allow them to focus more on what they do best – inspiring and nurturing the minds of tomorrow.

7. References

- Brown, T. B., Mann, B., Ryder, N., Subbiah, M., Kaplan, J., Dhariwal, P., Neelakantan, A., Shyam, P., Sastry, G., Askell, A., Agarwal, S., Herbert-Voss, A., Krueger, G., Henighan, T., Child, R., Ramesh, A., Ziegler, D. M., Wu, J., Winter, C., ... Amodei, D. (2020). Language models are few-shot learners. arXiv preprint arXiv:2005.14165.
- Cope, B., Kalantzis, M., & Sears, D. (2020). Artificial intelligence for education: Knowledge and its assessment in AI-enabled learning ecologies. Pages 1229-1245.
- Dou, Y., Forbes, M., Koncel-Kedziorski, R., Smith, N. A., & Choi, Y. (2022). Is GPT-3 text indistinguishable from human text? Scarecrow: A framework for scrutinizing machine text. arXiv preprint arXiv:2107.01294v3.
- Johnson, Steven A.I. Is Mastering Language. Should We Trust What It Says? (15th April, 2022) *New York Times Magazine*
- Lu, A., Zhang, H., Zhang, Y., Wang, X., & Yang, D. (2023). Bounding the capabilities of large language models in open text generation with prompt constraints. Georgia Institute of Technology, Shanghai Jiao Tong University, Google, Stanford University.
- Mullen, C. A. (2017). *Artificial intelligence in education: Past, present, and future*. In C. A. Mullen (Ed.), *The Routledge international handbook of artificial intelligence in education* (pp. 3-21). New York, NY: Routledge.
- OpenAI. (n.d.). OpenAI: Discovering and enacting the path to safe artificial general intelligence. Retrieved from <https://openai.com/>
- Pelachaud, C., & Poggi, I. (Eds.). (2016). *Computational modeling of emotions and social signals*. Cham, Switzerland: Springer.
- Snashall, P. (2023). AI prompt survey [Unpublished raw data, Google Forms]. Huachiew Chalermprakiat University.
- Thompson, Clive, A.I. is My Copilot, (April,2022) *Wired Magazine*
- Warzel, C. (2023, February 9). The most important job skill of this century: Your work future could depend on how well you can talk to AI. *The Atlantic Magazine*.
- Wei, J., Wang, X., Schuurmans, D., Bosma, M., Ichter, B., Xia, F., Chi, E., Le, Q. V., & Zhou, D. (2022). Chain-of-thought prompting elicits reasoning in large language models. In *Advances in Neural Information Processing Systems 35 (NeurIPS 2022)*.
- Woodie, A. (2023, February 14). Prompt Engineer: The next hot job in AI. *Datanami*.
<https://www.datanami.com/2023/02/14/prompt-engineer-the-next-hot-job-in-ai/>

9. Appendices

Appendix A: Creating a conversation



Create a 10 line conversation between a pharmacist and a customer who is buying aspirin.



Pharmacist: Hi, how can I help you today?

Customer: I need to buy some aspirin.

Pharmacist: Do you have a prescription for that?

Customer: No, I don't. Is that a problem?

Pharmacist: No, it's not a problem. Aspirin is available over-the-counter. How many do you need?

Customer: Just a bottle of 100 tablets, please.

Pharmacist: Alright, let me grab that for you. Anything else you need?

Customer: No, that's all. Thanks.

Pharmacist: Here you go. The total comes to \$5.99.

Customer: Great, thank you.

Pharmacist: You're welcome. Have a good day.

THE EFFECTS OF TEACHING ENGLISH USING A PODACST ON THE LISTENING ABILITY OF THAI EFL LEARNERS

Armanaya Montawat*, Kanyarat Chaicharoe, Sunitcha Chantarachote, Danukan Yiain,
Pongpatchara Kawinkoonlasate

Faculty of Liberal Arts, Huachiew Chalermprakiet University

*Email : 630012@live.hcu.ac.th

Abstract

Listening is the most important skill in learning language, especially English as foreign language. At present, Thai EFL learners have faced problems in listening English particularly, vocabulary, accent, and the rate of speech. The objective of this research was to examine the effects of learning English using a podcast toward the listening ability of Thai EFL learners. This research also studied learner's opinions of learning English using podcast. With the quantitative and qualitative research method, this research was conducted with twenty people who are third-year undergraduate students studying in English major, Faculty of Liberal Arts, Huachiew Chalermprakiet University. The participants were selected using clustered random sampling. The researchers used the achievement test (pre-test and post-test) to examine the effects of learning English through podcast on the listening ability of Thai learners. Learners Questionnaire was used to investigate learner's satisfactions towards learning English through podcasts. Based on the results, the post-test mean score for listening ability (\bar{X} =13.45, SD =2.28) was higher than that of the pre-test mean score (\bar{X} =11.90, SD =2.85). The paired t-test showed a significant difference between the pre-test scores ($t = 6.945, p < 0.05$). The results from the pair t-test which showed a significant difference in the Pre- and Post-test scores and the high post test scores of individual students, so it indicated that the use of podcast in English learning has an influence on learners' listening ability. The findings revealed that the participants had positive attitudes towards the use of podcasts in learning English. They agreed with the use of podcasts because the content of the podcast is interesting, the podcast has a variety of content and so on.

Keywords : Listening Ability, Podcast, Teaching English, EFL Students Learning English
Ju

1. Introduction

English as an international language (EIL) is considered by applied linguists to be a new paradigm for research, practice and English language teaching (ELT) (Vodopija-Krstanović & Marinac, 2019, p. 19). At present, English is used as a means of intercultural communication. Thailand, being a member of the ASEAN, has to communicate with its ASEAN neighbors for matters involving business and trade, medicine and health, and education and culture. (Hilado-Deita, 2019, p. 20). Even many learners are taught from elementary level, but some of them are still feel difficult in learning English listening such as vocabulary, grammar, and pronunciation. Moreover, there are many new technologies that play an important role in teaching, for example, a podcast.

Podcast is an audio or visual content that is automatically delivered over a network via free subscription (Rajic, 2013, p. 90). Podcasts are typically available as a series of prerecorded talk-radio shows that users can download to their computers or mobile devices. Podcasters often

publish episodes on a regular schedule. There is no prescribed format, length or style for a podcast. They may cover a range of subject areas, but an episode often focuses on one topic or story. Some podcasters read from a script, while others improvise (Lutkevich, 2022).

At the present, many educators see the huge potential of podcast, and it has emerged as a powerful tool for extensive listening skill to improve EFL learners (Borneo, 2018, p. 190). Podcasts are a great option for them as these are digital audio episodes which can be downloaded onto a device and listened to by students at their convenience (Yiemkuntitavorn & Rattanapan, 2021, p. 31). It is a great way to add podcast to your English learning listening ability because listening has an important role both in daily life and in academic contexts as it is crucial for people to sustain effective communication (Yildirim, & Yildirim, 2016, p. 2094). It helps improve vocabulary, pronunciation, and also speaking skill. Podcast is also can make learners used to with many different accents. Therefore, podcast can motivate learners as its entertaining learners while using podcast to improve their listening skill.

In the previous study, the investigation of the effectiveness of podcast aims to improve students' listening skill. The researcher used one class in the seventh grade of SMP Muhammadiyah 35 Jakarta as the sample. The results of the analysis show that the mean score of students is 89.4, statistical calculations show the result to (observation) > t (t-table) obtained are 17.986 while the T_t value is 1.721 with a significant level of 5% (0.05), because T_o is higher than T_t . From the result of this analysis this study concludes that using Podcast was an effective media to improve students' listening skills. (Nisa, Izzah & Hadi, 2022, p. 45).

Another previous study reviewed 20 articles published around 2020-2010 to find the effects of using podcast in teaching English to EFL students. The result of this study showed that podcast can increase language ability, especially the listening skill. Furthermore, podcast can motivate students in learning language. Teachers are recommended to use podcast as an interesting technological tool to support language learning for Indonesian students. The students confirmed that podcast is fascinating when it is used in the learning of listening skill. (Indahsari, 2020, p. 103),

According to the study of (Hasan & Tan, 2012, p. 160), this study examines ESL students' perceptions and attitudes towards the use of podcasts in terms of developing their listening competence. Perceptions and attitudes towards podcasts have been investigated through a survey questionnaire. The vast majority of the respondents stated that they enjoyed using podcast and that it had stimulated their interest in learning English. They also acknowledged that the use of podcasts could help improve their language skills particularly listening.

Additionally, several studies have examined only aspects of quantitative or qualitative. They often used either an achievement test or questionnaire, but they have not examined a lot of both quantitative and qualitative using an achievement test and questionnaire with learners. According to many studies, this research was conducted to fulfill the research gap that have both quantitative and qualitative using an achievement test and questionnaire with learners in order to make the results clearer.

2. The objective of the study

The objective of this study was two-fold

1) to examine the effects of learning English using a podcast toward the listening ability of Thai EFL learners.

2) to studied learner's opinions of learning English using podcast.

The research questions of this study were:

1) What extent the podcast can contribute learners' English listening ability?

2) What are the learner's attitudes towards English learning with podcast?

3. Materials and methods

3.1 Research design & Participants

The research design used in this research was quantitative and qualitative based on research questions "What extent the podcast can contribute learners' English listening ability?" and "What are the learner's attitudes towards English learning with podcast?" This research was conducted at Huachiew Chalermprakiet University. In the process of selecting participants, the researchers used clustered random sampling method. The students who enrolled in the Research Writing Course, the researchers chose only twenty participants who are third year English major students studying in the Faculty of Liberal Arts, Huachiew Chalermprakiet University in the first semester of the academic year 2022.

3.2 Research Instruments

This research had three instruments which are achievement test (pre-test and post-test), podcast and learners' questionnaire were used to obtain quantitative and qualitative data. The achievement test had five parts according to the five contents of podcasts. The podcast had five contents which talked about summer, computers, pets, childhood dream jobs, and exercise. The questionnaire was divided into three parts. Part 1 personal information of learners. Part 2 closed-ended question from the effects of learning English using a podcast. The participants were asked to respond to 10 close-ended statements using a five Likert's rating scale ranging from 1 = strongly disagree to 5 = strongly agree). Part 3 learners' suggestion which learners can give suggestions towards the teaching by using podcast.

3.3 Data collection & Data analysis

Firstly, the researchers distributed pre-test to all students at the beginning of the course before administering the podcasts application and had students do pre-test to measure background knowledge of students before learning listening with podcast. Secondly, the researchers started to teach English listening by using a podcast and had students use podcasts in their learning for three weeks. In the classroom, the researchers taught the ways to comprehend the main points, practiced listening to pronunciation or explained the words that are commonly found in podcast contents. Also, students can learn listening everywhere whether at their home since podcast is an online platform. Thirdly, the researchers administered the post-test to all participants after learning listening using podcast to measure if podcast effective or not. Finally, the researchers had students to fill out the questionnaire after all the teaching methods are done. Ten items of questionnaire were used to gather students' attitudes toward the use of podcast in learning listening using podcast. The researchers collected the data from the achievement test (pre-test and post-test). The pre-test and post-test score were analyzed using inferential statistics (T-test and paired t-test). The quantitative data from the learners' questionnaire were analyzed using descriptive statistics. Also, the qualitative data from the learners' suggestion in the questionnaire were analyzed using content analysis. The data was grouped in themes.

4. Results

To answer research questions, the quantitative and qualitative results obtained from the questionnaire were presented in the following order: The results of the participants pre-test and post-test, the results of the closed-ended question from the effects of learning English using a podcast questionnaire, and the results of Learner's suggestion. Regarding the results of participants pre-test and post-test, most of the participants got higher score of post-test than pre-test after learning English listening using podcast. Below is descriptive statistics from the result of an achievement test which calculated by SPSS.

Table 1 Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pre-test	11.90	20	2.845	0.636
Post-test	13.45	20	2.282	0.510

Table 2 Paired Samples Correlations

	N	Correlation	Sig.
Pre-test & Post-test	20	0.412	0.065

Research question 1: What extent the podcast can contribute learners' English listening ability?

To answer research question 1, quantitative results from pre-test and post-test were presented in the table. It can be seen that students who were taught by using podcast obtain higher score of post-test ($\bar{X}=13.45$, $SD=2.28$) than pre-test. This indicated that learning listening by using podcast gained improvement of students' listening ability. The mean score of The paired t-test showed a significant difference between the pre-test and post-test scores ($t = 6.945$, $p < 0.05$). The results from their pair t-test proved that there was a significant difference in the pre-test and post-test scores of individual students, it indicated that the use of podcast in English learning has an influence on learners' listening ability.

Table 3 Paired Samples Test

	Paired differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence interval of the difference				
				Lower	Upper			
Pre-test – Post-test	-1.550	2.800	0.626	-2.860	-0.240	-2.476	19	0.023

From the analysis by SPSS, sig. value 0.023 is lower than < 0.05 . therefore, the podcast was accepted. Obviously, there is a significant impact of the usage of podcast on students' listening ability. This score also supported that students' listening ability of third year English major students were influenced by podcast.

Research question 2: What are the learner's attitudes towards English learning with podcast?

To answer research question 2, the quantitative results were from close-ended questions and the qualitative results were from the learners' suggestion. As seen in the table 2, the overall mean score of students' attitudes toward learning English listening using a podcast were agreed with ($\bar{x}=3.96$, $SD=0.85$). The item with the highest mean score was 'The podcast has a variety of content' ($\bar{x}=4.30$, $SD=0.73$). Followed by the learners can access to the podcast through online media such as application, websites and so on that the participants agreed with ($\bar{x}=4.15$,

SD=0.81). The participants also agreed that the podcast helps to improve their listening skills (\bar{x} =4.10, SD=0.85). The participants said that the podcast is appropriate for the learners (\bar{x} =4.05, SD=0.83). Moreover, the participants said that the content of the podcast is interesting (\bar{x} =4.00, SD=0.86), and they agreed that the content of podcast is valid (\bar{x} =4.00, SD=0.73). Regarding learning English listening, the participants are convenient to listen to podcast valid (\bar{x} =3.90, SD=0.85). In addition, the participants agreed that the duration for listening podcast is appropriate to learners (\bar{x} =3.80, SD=0.77). They enjoyed listening to podcast (\bar{x} =3.65, SD=0.93), and they agreed that the audio of podcast is good quality (\bar{x} =3.60, SD=1.05) respectively.

Table 2 The results of the closed-ended question from the effects of learning English listening using a podcast questionnaire

Satisfaction question	\bar{x}	S.D.	Meaning
1. The content of the podcast is interesting.	4	0.86	Agree
2. The learners are convenient to listen to podcast.	3.9	0.85	Agree
3. The learners enjoy listening to podcast.	3.65	0.93	Agree
4. The podcast helps to improve your listening skills.	4.10	0.85	Agree
5. The learners can access to the podcast through online media such as application, websites and so on.	4.15	0.81	Agree
6. The audio of podcast is good quality.	3.60	1.05	Agree
7. The podcast is appropriate for the learners.	4.05	0.83	Agree
8. The duration for listening is appropriate to learners.	3.80	0.77	Agree
9. The podcast has a variety of content.	4.30	0.73	Strongly Agree
10. The content of podcast is valid.	4	0.73	Agree
Overall	3.96	0.85	Agree

Based on learners' suggestion on the questionnaire, the participants gave positive and negative attitudes towards learning English listening using a podcast and gave various reasons to support. The excerpts are as follows:

Table 3 The results of Learner's suggestion

Theme/topic	Suggestions
Improvement of English skills (listening skill, vocabulary, accent)	Student 10 "After I learned English listening by using a podcast, I gain more vocabularies and accent" Student 15 "I think the teachers should create good environment while teaching English listening. For example, create interesting media and more attractive." Student 14 "I think the teachers should motivate students before learning English listening in order to make students have passion and interested in English Listening."
Teaching & Learning activities	Student 16 "In teaching English listening, the teachers should show the script of the audio right at that moment because some students do not understand what the audio is talking about, so showing the script to students would be more effective and understand" Student 5 "I think the number of items in each listening is too few. It should be increased from 3 to be 5" Student 7 "I think some items are too easy, and it should be a little harder." Student 1 "I think some questions or some choices are duplicated, and the teachers should create variety of different questions" Student 3 "The sound of a podcast should be louder and clearer for making students understand easier"
Features of podcast	Student 13 "The teachers should connect the audio to a speaker instead of pointing a microphone as a speaker of mobile phone because this way help the sound will not be cracked"

5. Discussion

5.1 The extent of podcast can contribute learners' English listening ability

The findings on the pre-test and post-test of learning English listening revealed that in learners' ability, using podcast is effective and influential at a high level and supports their listening ability. English listening from podcast eases them to practice anywhere and anytime because it is an online platform, so it is more convenient for learners. Also, they can have more time to practice English listening for the tests. (Yiemkuntitavorn & Rattanapan, 2021), which found that English listening from podcast offers opportunities to learners to listen to other various contents of podcast in the application other than the contents that the researchers recommended. This helps them gain more practicing. Furthermore, the online platform of podcast is a useful feature to facilitate learning English listening. These findings are in accordance with the findings of previous research (Bangkhadara, 2019) which revealed that learning English listening using a podcast, students enhanced their listening ability as the results from pre-test and post-test. Also, the results of the questionnaire on students' attitudes towards learning with the use of podcast indicated that the students agreed with the use of podcast in learning English listening because it provided the sufficiency of their listening. However, in this research, it is found that a few of participants got the score of post-test less than pre-test because there was a technical problem while taking the tests. This might be a mistake in this research.

5.2 The learner's attitudes towards English learning with podcast

Overall, the findings on the close-ended question revealed that the attitudes of learners were agreed with learning English listening using podcast. Similarly, Indahsari (2020) found that most participants reported that learning English listening with podcast was good for them in many aspects. In terms of the podcast has a variety of content, which they strongly agreed with this. They can access to the podcast through online media such as application, websites and so on. Besides, Hasan & Tan (2012) reported that the podcast helps them to improve their listening skills, the podcast is appropriate for them, the content of the podcast is interesting. Most learners also agreed that the content of podcast is valid. They were convenient to listen to podcast. Regarding to the duration of each content from podcast, most learners agreed that the duration for listening is appropriate to learners because it was only two or three minutes. It was not too long that learners could get bored or distracted while listening.

According to the study of (Nisa, Izzah & Hadi, 2022), some participants gave suggestions both positive and negative attitudes towards learning English listening with podcast. In positive attitudes, some participants reported in terms of the improvement of English skills (listening skill, vocabulary, accent) that after they learned English listening by using a podcast, they gain more vocabularies and accent. However, some learners viewed that learning English listening with podcast was still have flaws for them. They thought that the educators should motivate students before learning English listening in order to make students have passion and interested in English Listening or the sound of a podcast should be louder and clearer for making students understand easier.

Regarding the research of (Abdulrahman, Basalama & Widodo, 2018), the suggestions in learning English listening with podcast, the quantitative and qualitative results showed that the learners wanted the educators improve learning teaching method. They wanted the educators create media to be more interesting and attractive. Also, the educators should motivate learners to make learners have passion in English learning listening. Importantly, the educators should connect the audio to a speaker instead of pointing a microphone to a speaker of mobile phone to

make the sound of podcast louder, clearer and was not cracked. These factors cause learners get bored and distracted. This led to the reason that learners' score on post-test less than the pre-test.

6. Conclusion

6.1 Conclusion

This research was conducted to examine the effects of learning English using a podcast toward the listening ability of Thai EFL learners and also studied learner's opinions of learning English using podcast. Twenty people who are third-year English major students at Huachiew Chalermprakiet University participated in this research. Pre-test and post-test were used to collect the quantitative and data. Also, the learner questionnaire was used to collect the quantitative and qualitative data. The findings revealed that the most participants got the higher score of post-test than pre-test. The most of participants' attitudes agreed with learning English listening by using a podcast. However, the problematic issues which learners have suggested on the questionnaire towards learning English listening were mentioned. These include the motivation or encouragement of learning English listening, the quality of podcast and others. The findings on the extent of podcast and the learner's attitudes towards learning English listening with podcast can be useful basis information for language teachers in improving their teaching method.

6.2 Implication of the study and recommendation for further studies

The research findings can contribute to useful pedagogical implication. The findings on the extent of podcast of learning English listening show that English listening with podcast was an influent way of learning English listening for the learners who were studying in English major. The elements of a podcast and steps of development could be applied to other studies. According to the elements of podcast, they could be a framework for other teachers to develop their own teaching by using a podcast since a podcast provided the students to access the podcast website or application and listen to the podcast episode anywhere and anytime. Thus, the results of the present study by using a podcast, there were some comments that suggested about the sound quality of podcast. In case other researchers need information in kind of this field, this research could be useful and supportive as case studies for teachers and course developers to realize the sound quality of podcast and improve in English listening course in order to enhance and increase EFL students' listening skills and produce authentic language.

6.3 Limitations of the study

Due to the time was limited, listening skill actually takes a long time to become fluently, comprehensible and effective, but the duration in this research was too short, so learners could not fully practice English listening. More than that, the listening ability of individual student was different. Some participants already had a good listening baseline, so they did not take long time to practice listening. On the other hand, some participants did not have much basic listening experience, so they needed more time to practice English listening.

7. Acknowledgements

This study would never have been completed without the assistance and support of several people. We heartfelt thanks for kindness and helpfulness.

First, we would like to express our deep appreciation to our advisor, Asst. Prof. Dr. Pongpatchara Kawinkoonlasate, for her valuable and kind support, and taking her precious time

to give advice and encouragement since the first day until the day we completed our research paper. Without her kind support and sincere assistance, we could never have completed this study.

Also, we would like to express our thankfulness to all participants and the instructors from English major of Huachiew Chalermprakiet University where we did the survey research for their friendly and sympathetic cooperation in responding to the questionnaires.

Finally, we would like to express our deepest gratitude for the unity and determination within our group who always supported and were beside throughout time in the EG 3063 Research Report Writing.

8. References

- Abdulrahman, T. R, Basalama, N, & Widodo, M. R. (2018). The Impact of Podcasts on EFL Students' Listening Comprehension (abstract). *International Journal of English Linguistics*; Vol. 8, No. 6; 2018ISSN 1923-869X E-ISSN 1923-8703. Retrieved August 21, 2022, from https://www.academia.edu/76116617/The_Impact_of_Podcasts_on_EFL_Students_Listening_Comprehension
- Bangkhadara, W. (2019). The Effects of Mobile Podcast on Listening Comprehension of Thai EFL University Students. A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Arts in English Language Studies Suranaree University of Technology Retrieved August 30, 2022, from <http://203.158.7.72:8080/sutir/bitstream/123456789/8420/2/Fulltext.pdf>
- Borneo, R. (2018). The Use of Podcast to Improve Students' Listening and Speaking Skills for EFL Learners. *Journal of Applied Linguistics and Language Research*. Retrieved August 30, 2022, from https://www.academia.edu/38610148/The_Use_of_Podcast_to_Improve_Students_Listening_and_Speaking_Skills_for_EFL_Learners
- Hasan, Md. M, & Tan, B. H. (2012). ESL Learners' Perception and Attitudes Towards the Use of Podcast in Developing Listening Skills (abstract). Retrieved September 15, 2022, from https://www.melta.org.my/journals/TET/downloads/tet41_02_05.pdf
- Hilado-Deita, C. H. (2019). History of English Language Teaching: A Glimpse of Thailand Scenario (The status quo). Retrieved September 20, 2022, from https://www.chonburi.spu.ac.th/journal/booksearch/upload/1426-003_history.pdf
- Indahsari, D. (2020). Using podcast for EFL students in language learning. *Journal of English Educators Society*. Retrieved September 15, 2022, from <https://jees.umsida.ac.id/index.php/jees/article/view/767>
- Lutkevich, B. (2022). What is podcasting? Retrieved September 16, 2022, from <https://www.techtarget.com/searchunifiedcommunications/definition/podcasting>
- Nisa, H. F, Izzah, L, & Hadi, M. S, (2022). The Use of Podcast to Improve Student' Listening Comprehension. *Journal of English Language Teaching in Indonesia*, p-ISSN 2339-1561 e-ISSN 2580-7684. Retrieved September 15, 2022, from <https://www.scribd.com/document/631959948/2739-9045-1-PB>

- Rajic, S. (2013). Educational Use of Podcast (abstract). *The Fourth International Conference on e-Learning (eLearning-2013)*, 26-27 September 2013, Belgrade, Serbia. Retrieved August 21, 2022, from <https://elearning.metropolitan.ac.rs/files/pdf/2013/15-stajka-rajic-educational-use-of-podcast.pdf>
- Vodopija-Krstanović, I, & Marinac, M. (2019). English as an International Language and English Language Teaching: The Theory vs. Practice Divide. *Iranian Journal of Language Teaching Research*, 7(2), (July, 2019) 19-38. Retrieved August 26, 2022, from <https://files.eric.ed.gov/fulltext/EJ1220759.pdf>
- Yiemkuntitavorn, S, & Rattanapan, J, (2021). Development of Podcasts to Enhance Foundation English Proficiency of Undergraduates at Sukhothai Thammathirat Open University. *ASEAN Journal of Open and Distance Learning*, Vol. 13, No. 1, 2021. Retrieved August 26, 2022, from https://ajodl.oum.edu.my/document/Previous/Volume13.N0.1_2021/03.%20Development%20of%20Podcasts_v2.pdf
- Yildirim, S, & Yildirim, Ö. (2016). The Importance of Listening in Language Learning and Listening Comprehension Problems Experienced by Language Learners: A literature review (abstract). *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi*, 16 (4), 2094-2110. Retrieved August 30, 2022, from <https://dergipark.org.tr/tr/download/article-file/291967>

9. Appendices

Appendix A The students' Pre-Test and Post-Test Scores in the study

Students No.	Pre-Test Score	Post-Test Score
1	11	14
2	15	15
3	8	12
4	14	14
5	7	5
6	14	14
7	15	15
8	15	15
9	14	14
10	14	14
11	12	15
12	13	14
13	13	13
14	11	14
15	14	14
16	14	11

17	6	15
18	9	14
19	9	12
20	10	15
Mean (\bar{X})	11.90	13.45
S.D.	2.85	2.28

Appendix B Pre-test and Post-test

Pre-test 15 items

Listening 1

Direction: Listen to the short conversations and choose the best answer.

- What is Emma favorite thing about the summer?
 - Sound of the waves
 - Sound of the rain
 - Sound of the air conditioner
 - Sound of the bird song
- What is Emma favorite ice cream's flavor?
 - Vanilla
 - Chocolate
 - Strawberry
 - Lemon
- What is Luke favorite ice cream's flavor?
 - Vanilla
 - Chocolate
 - Strawberry
 - Lemon

Listening 2

Direction: Listen to the short conversations and choose the best answer.

- What are they talking about?
 - Electronics
 - Mobile phones
 - Televisions
 - Computers
- Why Emma does not like to use Mac computers?
 - It is expensive
 - It has a file system problem
 - It is difficult to use
 - It has a sound problem
- According to the audio, what does "**It drives me nuts**" mean?
 - Frustrated
 - Interested
 - Embarrassed
 - Annoyed

Listening 3

Direction: Listen to the short conversations and choose the best answer.

- What is Geoff's pet look like?
 - Little black cat
 - White fluffy bunny
 - White black dog
 - Little brown squirrel
- What is the personality of Geoff's pet?
 - Clever and cruel
 - Drowsy and lazy
 - Naughty and stubborn
 - Playful and aggressive
- How does Geoff's pet react when it meets visitors?
 - It will attack other people.
 - It will bite other people.
 - It will hide under the couch.
 - It will beg visitors.

Listening 4

Direction: Listen to the short conversations and choose the best answer.

1. What does the extract mentioned about?

a. Parents' career	c. Childhood dream jobs
b. Education	d. Entertainment
2. What did Emma want to be?

a. Astronaut	b. Nutritionist	c. Teacher	d. Musician
--------------	-----------------	------------	-------------
3. What did Luke want to be?

a. Astronaut	b. Nutritionist	c. Teacher	d. Musician
--------------	-----------------	------------	-------------

Listening 5

Direction: Listen to the short conversations and choose the best answer.

1. How does Rachel exercise?

a. Dancing Zumba	b. Doing Yoga
c. Riding a bike	d. Dancing aerobic
2. What are the speakers talking about?

a. Everyday routine	b. Doing an exercise
c. Cleaning the house	d. Drawing a picture
3. How does Luke exercise?

a. Lifting weight	b. Thai boxing
c. Rock Climbing	d. Playing Badminton

Post-test

15 items

Listening 1

Direction: Listen to the short conversations and choose the best answer.

1. What is Emma favorite thing about the summer?

a. Sound of the waves	c. Sound of the air conditioner
b. Sound of the rain	d. Sound of the bird song
2. What is Emma favorite ice cream's flavor?

a. Vanilla	b. Chocolate	c. Strawberry	d. Lemon
------------	--------------	---------------	----------
3. What is Luke favorite ice cream's flavor?

a. Vanilla	b. Chocolate	c. Strawberry	d. Lemon
------------	--------------	---------------	----------

Listening 2

Direction: Listen to the short conversations and choose the best answer.

1. What are they talking about?

a. Electronics	b. Mobile phones	c. Televisions	d. Computers
----------------	------------------	----------------	--------------
2. Why Emma does not like to use Mac computers?

a. It is expensive	c. It is difficult to use
b. It has a file system problem	d. It has a sound problem
3. According to the audio, what does **"It drives me nuts"** mean?

a. Frustrated	b. Interested	c. Embarrassed	d. Annoyed
---------------	---------------	----------------	------------

Listening 3

Direction: Listen to the short conversations and choose the best answer.

1. What is Geoff's pet look like?

- a. Little black cat
b. White fluffy bunny
2. What is the personality of Geoff's pet?
a. Clever and cruel
b. Drowsy and lazy
3. How does Geoff's pet react when it meets visitors?
a. It will attack other people.
b. It will bite other people.
- c. White black dog
d. Little brown squirrel
- c. Naughty and stubborn
d. Playful and aggressive
- c. It will hide under the couch.
d. It will beg visitors.

Listening 4

Direction: Listen to the short conversations and choose the best answer.

1. What does the extract mentioned about?
a. Parents' career
b. Education
c. Childhood dream jobs
d. Entertainment
2. What did Emma want to be?
a. Astronaut b. Nutritionist c. Teacher d. Musician
3. What did Luke want to be?
a. Astronaut b. Nutritionist c. Teacher d. Musician

Listening 5

Direction: Listen to the short conversations and choose the best answer.

1. How does Rachel exercise?
a. Dancing Zumba
c. Riding a bike
b. Doing Yoga
d. Dancing aerobic
2. What are the speakers talking about?
a. Everyday routine
c. Cleaning the house
b. Doing an exercise
d. Drawing a picture
3. How does Luke exercise?
a. Lifting weight
c. Rock Climbing
b. Thai boxing
d. Playing Badminton

Appendix C

The Questionnaire of Students' Opinions towards Teaching English Using a Podcast on the Listening Ability of Thai EFL Learners

Questionnaire

The Effects of Teaching English Using a Podcast on the Listening Ability of Thai EFL Learners

.....

Part 1: Personal information

Direction: Please mark / in the appropriate box and fill in the blanks if necessary.

- Gender Male Female
- Age 20 years old Under 20 years old Over 20 years old

Part 2: Satisfaction question

Direction: Please mark / from the evaluation options that is closest to your opinions and personal experiences.

Evaluation scale: 1 = Strongly agree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly disagree

satisfaction question	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
1. The content of the podcast is interesting.					
2. The learners are convenient to listen to podcast.					
3. The learners enjoy listening to podcast.					
4. The podcast helps to improve your listening skills.					
5. The learners can access to the podcast through online media such as application, websites and so on.					
6. The audio of podcast is good quality					
7. The podcast is appropriate for the learners.					
8. The duration for listening is appropriate to learners.					
9. The podcast has a variety of content.					
10. The content of podcast is valid.					

Part 3: Learners' suggestion

Direction: Please write your comments in the provided space.

Learners' suggestion

.....

.....

.....

10. Authors Biodata

Armanaya Montawat

Armanaya Montawat born on 19 June 2001. She born in Bangkok, Thailand. Armanaya attended in school since 2005 at Phraharuthai Donmuang School. In 2007 to 2017, she moved to Satitbangna School. Armanaya started to attend in a Vocational Education at Krirk Institution since 2018 to 2020. While she was studying at Krirk Institution, Armanaya won the Speech English Contest. She is now a third year student studying at Huachiew Chalermprakiet University in Faculty of Liberal Arts majoring in English.

Kanyarat Chaicharoe

Kanyarat Chaicharoey born on 12 September 2001. She born in Sa Kaeo, Thailand. Kanyarat attended in school since 2005 at Child Development Center School. In 2007 to 2012, she moved to Nikomsongkosong school. Kanyarat started to attend in Klongnamsaiwitthayakarn school since 2013 to 2018. She is now a third year student and studying at Huachiew Chalermprakiet University in Faculty of Liberal Arts, Major in English.

Sunitcha Chantarachote

Sunitcha Chantarachote born on 4 October 2001. She born in Muang district, Singburi, Thailand. Sunitcha attended in school since 2005 at Mitudom kindergarten. In 2007 to 2012, she moved to Lasalle School. Then, Sunitcha changed to studied at Poolcharoenwittayakom school since 2013 to 2015. In 2016 to 2018, she changed to studied in Homeschooling. She is now a third year student studying at Huachiew Chalermprakiet University Faculty of Liberal Arts, English major.

Danukan Yiain

Danukan Yiain on 27 March 2001. He born in Chaiyaphum, Thailand. Danukan attended in school since 2005 to 2013 at Suanwittaya School. He moved to secondary school In 2014 to 2017, at Nonkokwittaya school. While he was studying at Nonkokwittaya school, Danukan won received the runner-up prize in the district level Thai etiquette contest and School Excellence Award. Next, Danukan moved to upper secondary education at Nongbuadangwittaya school since 2018 to 2020. While he was studying at Nongbuadang. He is now a third year student studying at Huachiew Chalermprakiet University in Faculty of Liberal Arts, English major.

Asst. Prof. Dr. Pongpatchara Kawinkoonlasate

Asst. Prof. Dr. Pongpatchara Kawinkoonlasate is currently the Course Administrator of Language Studies, Faculty of Liberal Arts, Huachiew Chalermprakiet University. Her research interest include Develop English Language Skills, Online Language Learning, Develop English Writing Ability and Development of e-Reading

Low-Carbon Destination Attributes in the Viewpoints of Thai Tourists

Tantawan U-napark*, Pisorn Janvanichyanont, Prapakorn Seetha, Andhika Pradana,
Kosin Prasarnklieo, Natha-Orn Voramongkolchai

School of Humanities and Tourism Management, Bangkok University

*Email : tarntawan.u@bu.ac.th

Abstract

The purpose of this research is to study the key attributes of low-carbon tourist destinations from the viewpoint of Thai tourists. The study was conducted in Koh Chang, Koh Mak, and Koh Kood in Trat Province, which is well-known for its richness of natural resources and variety of tourism activities. By doing a quantitative research approach, questionnaires were distributed onsite by adopting convenience sampling method and collected valid data from 401 Thai tourists who traveled to low-carbon tourist destinations and analyzed by finding average rate and ranking the highest rated attributes of the low carbon destination. In this study, the destination attributes that are considered important from the viewpoint of Thai tourists are (1) accommodation that offers environmentally friendly amenities, (2) bicycle rental service, (3) service providers that have a good knowledge related to low carbon tourism (4) homegrown food with local ingredients from the island (5) eco-touring trail construction. The results from this study could benefit local people and sustainable tourism private sectors.

Keywords : low-carbon tourism, tourist destination attributes, carbon footprint, sustainable tourism

1. Introduction

The global warming problem has been discussed and studied for a long time and the issue has been gaining ever more serious attention nowadays. The main factor is the emission of greenhouse gases into the atmosphere, causing the world to have a higher temperature (Thailand Greenhouse Gas Management Organization, 2023). One of the main causes of global warming comes from various activities in the tourism and hospitality industry such as travel, food and beverage production, and activities in tourist accommodation (Tourism Authority of Thailand, 2021). The amount of this greenhouse gas is called "carbon footprint", measured in units of "kilo carbon equivalent" or kgCo₂eq.

Low-carbon tourism's emphasis is to find ways to minimize carbon emissions during traveling (Lenzen, et al., 2018). This could include several activities to reduce energy consumption such as changing from using cars in tourist attractions to walking, rowing, and cycling, choosing a green hotel, using local ingredients for cooking, using a shuttle bus instead of a personal car (Designated Areas for Sustainable Tourism Administration, 2016).

Thailand has initiated and promoted low-carbon tourism projects in several areas throughout the country. The organization that plays an important role is Designated Areas for Sustainable Tourism Administration (DASTA) whose aim is to develop tourism destinations to grow efficiently and sustainably in terms of economics, society, and environment. After DASTA promoted activities to reduce global warming in six specific areas, carbon emissions decreased by 7.65% in 2015. One spot of these special areas is Koh Chang and neighboring islands, Koh Kood and Koh Mak in Trat Province. Due to the variety of tourism resources and activities, Koh Chang and its neighboring islands have always been one of the most remarkable tourist destinations. Before the Covid-19 pandemic, these three islands accommodated 1.6 million

tourists, 75% of whom were Thai tourists (Ministry of Tourism and Sports, 2019); Therefore, signifies the importance of Thai tourists as a major contribution to the local economy.

A similar concept, sustainable tourism, has long been studied in Thailand and worldwide in various aspects. However, the “low-carbon tourism” notion seems to be appeared and been considered just recently in Thailand’s tourism industry. Most researches are also limited to government policy; such as the study of Tang et al. (2011) which mentioned the conceptual framework regarding sustainable development of tourism industry chain in China, focusing on low-carbon economy. This study, therefore, aims to investigate further by exploring how Thai tourists value different attributes of designated destinations.

2. Research objective

To study the level of importance of low-carbon tourist destination attributes from the viewpoints of Thai tourists.

3. Literature review

Low-carbon tourism has been recently discussed in tourism literature going along with global warming threats. Can and Hongbing (2011) proposed a low-carbon tourism model for reducing the carbon footprint in tourist destinations in China. The model presents a path to carbon footprint reduction, comprising four strategies: building low-carbon tourist attractions, allocating low-carbon tourist facilities, promoting a low-carbon way of tourist consumption, and nurturing a tourist experience environment of carbon sequestration. The first plan, building low-carbon tourist attractions, integrates building fascinating attractions such as a solar farm. The second strategy, allocating low-carbon tourist facilities, involves setting up infrastructure in place including roads, energy supply, and transportation. The third part of this plan, promoting a low-carbon way of tourist consumption, associates carbon offset activities such as encouraging tourists to plant trees. The last part, nurturing a tourist experience environment of carbon sequestration, encompasses public and private sectors' cooperation in developing a harmonious low-carbon tourism environment.

Zhang and Zhang (2020) have studied the indicators of low-carbon tourism at the urban destination, which cover the proportion of low-carbon transport, proportion of green hotels, proportion of green catering enterprises, proportion of low-carbon tourism attractions, renewable energy usage, trash management, and carbon literacy of tourism enterprises.

The previous study by Chen et al (2011) suggested that not only governmental sectors that are concerned about environmental issues, carbon emission in particular, but individual tourists and communities have also become more conscious and shown more engagement in eco-friendly behaviors. Moreover, Manaktola and Jauhari (2007) stated that the environmental efforts of tourism service providers have the power to attract more tourists, and having a green image could boost the profit of the business. Therefore, it is worth studying the perceived important attributes from the viewpoint of tourists.

A study done by Lee (2019), provides data that the sensory attribute to low-carbon tourism has a very high impact to the business. Sensory experience can help the tourists connect more to the local area by stimulating the physical responses related to their memory, and encourage the tourists to engage more in the activities, and further promoting these activities to their peers (Mehrabian & Russell, 1974).

4. Research Methodology

This research was conducted by adopting a quantitative approach, using a questionnaire survey to gather data from domestic tourists who visited Koh Chang, Koh Kood, and Koh Mak in the Trat province of Thailand. A convenience sampling approach was selected for collecting the data.

Research instrument

The questionnaire was written in the Thai language and uploaded to the digital platform comprise of two main sections. The first section was constructed to enquire about the demographic profile and travel behavior of respondents. There are five questions in this section, asking gender, age, level of education, and monthly income to form the demographic profile of tourists. The last question asked how frequently the respondents travel per year.

The second section of the questionnaire consists of twenty-two questions. Each question asks the respondents to rate the level of importance of low-carbon destination attributes in the perception of tourists in the form of a six-point scale, ranging from the least important to the most important. The destination attributes included in the questionnaires cover ones regarding accommodation, service providers, transportation, and activities. Respondents must choose only one answer to each question.

Data collection and data analysis

A questionnaire survey via digital platform was distributed at Koh Chang, Koh Kood, and Koh Mak in Trat province, as they are spot areas of low carbon destinations by DASTA (Designated Areas for Sustainable Tourism Administration), the public organization of Thailand promotes potential areas to become sustainable community-based tourist destinations. Koh Mak, one of the three islands, was studied and confirmed that it has a potential to become low-carbon tourist destination and sustainable tourism management in terms of natural resources such as power, water, and waste management can benefit the community and tourists as well (Boonphetkaew and Poltanee, 2018).

The link to the questionnaire was handed to tourists at the destinations in the form of a QR code. Convenience Sampling method was adopted due to a few reasons. First, the target population of Thai tourists who visit low-carbon destinations are available at these three islands. They are easily accessible. Secondly, convenience sampling is time and cost efficient for conducting the survey which fits to limited time frame of research project plan. Lastly, this method allows the researchers to collect larger number of data in order to provide high level of generalization capability.

430 sets of questionnaire were distributed to Thai tourists at the piers of three islands during peak season of traveling which is from December 2022 to January 2023.

The population of the research is the tourists to the low-carbon destinations in these three islands, which the number of Thai tourists was 1,184,382 persons in 2019 according to the Ministry of Tourism and Sports. The minimum required amount of data is therefore 400 sets, calculated by adopting the sample sizing method of Taro Yamane at the confidence level of 95%. The total collected data after ruling out the incomplete questionnaires was 401 sets.

The collected data were analyzed as follows;

1. Descriptive statistic including Frequency and Percentage was used to identify the characteristics of the demographic profile of Thai tourists who traveled to Koh Mak, Koh Chang, and Koh Kood.

2. The Mean and Standard Deviation of the answers from the second section were calculated to exhibit the most important destination attributes in the perception of Thai Tourists.

5. Results and Discussion

Table 1 Demographic Profile of Respondent

Demographic	Category	Frequency	Percent
Gender	Male	156	38.90
	Female	177	44.13
	Others	68	16.97
Ages Group	18-20	28	6.98
	21-30	141	35.16
	31-40	127	31.67
	41-50	74	18.45
	Over 50	31	7.74
Education	High School	11	2.74
	Diploma	12	2.99
	Bachelor	255	63.59
	Master and Above	78	19.45
	Non- Degree holder	45	11.23
No. of Visit	1-2 times	215	53.62
	3-4 times	136	33.92
	5-6 times	45	11.22
	More than 6 times	5	1.24
Level of Income	Below 15,000 THB/ Month	22	5.49
	15,000-30,000 THB/ Month	191	47.63
	30,000-45,000 THB/ Month	146	36.41
	45,000-60,000 THB/ Month	30	7.48
	More than 60,000 THB/ Month	12	2.99

After the data collection process and the incomplete and unusable responses have been removed, a total of 401 responses were kept. In the usable samples of 401, approximately 38.9% were Male, 44.1% were female and 16.9% were LGBTQ+. The ages of respondents ranged from 18 to over 50 years. The majority of respondents were between the ages of 21-30 years old, 35.1%, followed by the ages of 31-40 as 31.6%. However, there were also a group of ages between 41-50 years old and over 50 years old, but these middle aged and a senior adult were a minority group of the sample.

The majority of the respondent has an education level of Bachelor's degree (63.59%) but there was also a certain amount of respondent who has hold a non-degree (11.22%). About 53.61% of the respondent said that they visit the destinations about 1-2 times per year, 33.91% suggested that they visit the destination 3-4 times per year and there is only 1.24% of respondents who visit the destination more than 6 times per year.

The result also reports that 47.63% of respondents have a level of income around 15,000-30,000 THB/month, 36.40% indicated an income of 30,000-45,000 THB/ month, 7.48% answered that they have an income of 45,000-60,000 THB/ Month, and only 2.99% of respondent who earns more than 60,000 THB/ month.

Table 2 Low Carbon Destination Attribute – Accommodation (Hotel, Resort, Guest House)

Attribute	Category	Mean	S. D.
Accommodation	Green materials used by accommodation facilities	4.76	0.78
	Eco-friendly accommodation with national/international certification (e.g., Green Hotel, ASEAN Green Hotel).	4.68	1.07
	Accommodation that efficiently uses renewable energy.	4.8	0.91
	Accommodation that strictly implements clean energy consumption policy.	4.72	1.17
	Accommodation that offers environmentally friendly amenities (e.g., giving cloth shopping bag instead of plastic shopping bag).	5.42	0.93

The result of this table showed the attribute with the highest mean score is accommodations that offer environmentally friendly amenities (Mean = 5.42), followed by accommodations that efficiently use renewable energy (Mean = 4.8), green materials used by accommodations facilities (Mean = 4.76), accommodations that strictly implement clean energy consumption policy (4.72), and eco-friendly accommodations with national/international certification (e.g., Green Hotel, ASEAN Green Hotel) (4.68).

The finding of this table helps to explain that accommodations such as hotels and resorts should provide eco-friendly amenities at the low carbon destination. The accommodation sector should also consider the use of technological innovation in their hotel operating process to save energy. To reduce carbon footprint, solar-based renewable energy should be implemented (Navratil et al.,2019). On the other hand, tourists have less concern about accommodations with national/international certification (e.g., Green Hotel, ASEAN Green Hotel). They show more appreciation for the accommodation, which uses green materials at their service and operation.

Table 3 Low Carbon Destination Attribute – Service Provider (Restaurant, Local Tour, Travel Agency)

Attribute	Category	Mean	S. D.
Service Provider	Service providers that provide an arrangement of an alternative travel mode, such as a slow-travel package around the island	4.12	1.20
	Service providers that publish and provide updates on efforts made toward environmental protection	5.08	1.29
	Service providers that disseminate knowledge related to low-carbon tourism	4.92	1.32

Attribute	Category	Mean	S. D.
	Service providers that have a good knowledge related to low-carbon tourism	5.32	1.28

Table 3 shows respondents ranking service providers that have good knowledge related to low-carbon tourism as their priority (Mean = 5.32), followed by service providers that publish and provide updates on efforts made toward environmental protection (Mean = 5.08), Service providers that disseminate knowledge related to low-carbon tourism (Mean = 4.92) and Service providers that provide an arrangement of an alternative travel mode, such as a slow-travel package around the island (Mean = 4.12)

These results strongly indicate that service providers should have a good knowledge of low-carbon tourism and be able to publish, provide and continue promoting the sustainable consumption of the tourists as a part of their business strategies (Yousaf et al., 2021). Not only good knowledge, but service providers should also put a strong effort toward environmental protection throughout their business model, management as well as operation. Interestingly, the result indicated tourists have less concern about the alternative travel mode such as slow-travel packages around the island along with disseminating knowledge related to low-carbon tourism.

Table 4 Low Carbon Destination Attribute- Transportation (Bus, Ferry, Speed Boat, Cruise, Sea Plan)

Attribute	Category	Mean	S. D.
Transportation	Land transport that conforms with local and national environmental policy	4.76	1.13
	Water transport that conforms with local and national environmental policy (e.g., not bringing private vehicles on the ferry)	5.0	0.96
	Availability of low-energy consumption vehicles (e.g. electric vehicles)	5.12	1.17
	Bicycle rental service	5.36	0.91

Table 4 presents the respondent-highlighted bicycle rental service (Mean = 5.36) over availability of low-energy consumption vehicles (e.g. electric vehicles) (Mean = 5.12), water transport that conforms to local and national environmental policy (e.g., not bringing private vehicles on the ferry) (Mean = 5.0), and land transport that conforms with local and national environmental policy (Mean = 4.76).

From the respondent's point of view, they agree the destination should provide and operate transportation that minimized carbon footprint, for example, providing bicycle rental service or other slow transportation (Su-Hsin et al., 2018). Moreover, they believed the destination should have a variety of low-energy consumption vehicles such as electric vehicles to reduce carbon in the long run.

Table 5 Low Carbon Destination Attribute- Activities (Island Activities, Sport activities, Recreation Activities, Sea Activities)

Attribute	Category	Mean	S. D.
Activities	Low carbon activities that inspires tourists to appropriately interact natural resources.	5	0.96
	Low carbon activities that inspires tourists to interact with local residents on the island (e.g., day & night fishing)	5	1.08

Attribute	Category	Mean	S. D.
	Eco-touring trail construction	5.16	1.31
	Visiting organic gardens	4.8	1.29
	Reforestation activity	4.88	1.42
	Home-grown food with local ingredients from the island	5.2	1.12
	Using organic ingredients in the foods	5.08	1.08
	Using eco-friendly tableware	5	1.12
	Having meals of sufficient size and appropriate weight	5.12	1.13

Table 5 has shown that home-grown food with local ingredients from the island is the highest mean score (5.2), followed by Eco-touring trail construction (5.16), Having meals of sufficient size and appropriate weight (5.12), Using organic ingredients in the foods (5.08), Low carbon activities that inspire tourists to appropriately interact natural resources (5), Low carbon activities that inspire tourists to interact with residents on the island (e.g., day & night fishing) (5), Using eco-friendly tableware (5), Reforestation activity (4.8), and Visiting organic gardens (4.8).

The results in this table show home-grown food from the local island is the most important mechanism that supports sustainable agricultural practices and low carbon destination from the tourist's point of view. The destination should develop tourist activity in a way that supports the local community and local agriculture (Nummedal and Hall, 2006). Organic farming, as an example, could benefit a destination in many aspects such as the prevention of chemical contamination in food production. Moreover, an organic garden is usually a small scale of food production and produce within a local village. To unnecessary of the transportation, organic gardens could reduce the carbon footprint at tourist destinations (Gössling et al., 2011). Other than that, local food also offers a sense of authenticity which can generate a greater tourist experience.

Lastly, respondents also agree that the reduction of food waste can help lower carbon output at the destination. They believe having meals of sufficient size and appropriate weight could make a significant contribution to a destination to generate a lower carbon footprint.

6. Conclusion

In conclusion, this research paper explored the key attributes of low-carbon tourist destinations from the viewpoint of Thai tourists. The findings of the study revealed several important insights. Firstly, the promotion of low-carbon tourism in tourist destinations can bring sustainable benefits to local people, including the local economy, health, and well-being. By adopting low-carbon practices, destinations can contribute to reducing carbon emissions and mitigating the impacts of global warming, ultimately benefiting both the environment and the local community.

Secondly, tourists who engage in low-carbon tourism experiences can enjoy the authenticity of local culture, including the taste of local food made with local ingredients, engaging in local activities, and appreciating the beauty of scenic landscapes. Low-carbon tourism provides an opportunity for tourists to connect with the local community and immerse themselves in the destination's unique offerings.

Finally, the results of this study can be valuable for private and local governmental sectors involved in marketing and promoting destinations. The findings provide insights into the attributes that Thai tourists consider important when selecting low-carbon destinations. By incorporating these attributes into their marketing campaigns and development plans, these sectors can attract more tourists who are environmentally conscious and enthusiastic about sustainable tourism practices. The attributes identified in this research, such as accommodation with environmentally friendly amenities, service providers with good knowledge of low-carbon tourism, bicycle rental services, and homegrown food with local ingredients, can be emphasized in marketing campaigns to attract and meet the demands of environmentally conscious tourists.

Overall, the research highlights the significance of low-carbon tourism in fostering sustainable development, both for the environment and the local community. It emphasizes the importance of adopting eco-friendly practices in accommodations, promoting knowledge and awareness among service providers, and providing sustainable transportation options. By integrating these attributes into destination development and marketing efforts, stakeholders can create a more appealing and sustainable tourism experience for Thai tourists who prioritize low-carbon practices.

7. Reference

- Boonphetkaew, U., & Poltanee, I. (2018). Tourism Management on the Concept of Low Carbon Destination: A Case Study of Koh Mak Island, Trat Province. *Academic Journal of Thailand National Sports University*, 10(3), Article 3. <https://he02.tci-thaijo.org/index.php/TNSUJournal/article/view/248260>
- Can, H., & Hongbing, D. (2011). The model of developing low-carbon tourism in the context of leisure economy. *Energy Procedia*, 5, 1974–1978. <https://doi.org/10.1016/j.egypro.2011.03.339>
- Carbon Neutral Tourism*. (n.d.). Tourism Authority of Thailand. Retrieved June 19, 2023, from <https://thai.tourismthailand.org/Accessibility/Articles/carbon-neutral-tourism>
- Chen, C.-M., Chen, S., & Lee, H. (2011). The destination competitiveness of Kinmen's tourism industry: Exploring the interrelationships between tourist perceptions, service performance, customer satisfaction and sustainable tourism. *Journal of Sustainable Tourism*, 19, 247–264. <https://doi.org/10.1080/09669582.2010.517315>
- Cheng, Q., Su, B., & Tan, J. (2013). Developing an evaluation index system for low-carbon tourist attractions in China – A case study examining the Xixi wetland. *Tourism Management*, 36, 314–320. <https://doi.org/10.1016/j.tourman.2012.10.019>
- Designated Areas for Sustainable Tourism Administration*. (2016). Low Carbon Destination. <http://www3.dasta.or.th/th/%E0%B8%99%E0%B9%82%E0%B8%A2%E0%B8%9A%E0%B8%B2%E0%B8%A2%E0%B9%80%E0%B8%A7%E0%B9%87%E0%B8%9A%E0%B9%84%E0%B8%8B%E0%B8%95%E0%B9%8C-website-policy/itemlist/category/94-publication>
- Domestic Tourism Statistics*. (2019). Ministry of Tourism and Sports. <https://www.url.ie/>

- Gössling, S., Garrod, B., Aall, C., Hille, J., & Peeters, P. (2011). Food management in tourism: Reducing tourism's carbon 'foodprint.' *Tourism Management*, 32(3), 534–543.
<https://doi.org/10.1016/j.tourman.2010.04.006>
- Greenhouse Effect. (2023). Thailand Greenhouse Gas Management Organization.
<http://www.tgo.or.th/2020/index.php/en/page/greenhouse-effect>
- Lee, S.-H., Wu, S.-C., & Li, A. (2018). Low-carbon tourism of small islands responding to climate change. *World Leisure Journal*, 60(3), 235–245.
<https://doi.org/10.1080/16078055.2018.1496530>
- Lee, T., & Jan, F.-H. (2019). The Low-Carbon Tourism Experience: A Multidimensional Scale Development. *Journal of Hospitality & Tourism Research*, 43, 109634801984967.
<https://doi.org/10.1177/1096348019849675>
- Lenzen, M., Sun, Y.-Y., Faturay, F., Ting, Y.-P., Geschke, A., & Malik, A. (2018). The carbon footprint of global tourism. *Nature Climate Change*, 8(6), Article 6.
<https://doi.org/10.1038/s41558-018-0141-x>
- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364–377. <https://doi.org/10.1108/09596110710757534>
- Mehrabian, A., & Russell, J. A. (1974). An approach to environmental psychology. Cambridge: MIT Press.
- Navratil, J., Picha, K., Buchecker, M., Martinat, S., Svec, R., Brezinova, M., & Knotek, J. (2019). Visitors' preferences of renewable energy options in "green" hotels. *Renewable Energy*, 138, 1065–1077. <https://doi.org/10.1016/j.renene.2019.02.043>
- Nummedal, M., & Hall, C. M. (2006). Local Food in Tourism: An Investigation of the New Zealand South Island's Bed and Breakfast Sector's Use and Perception of Local Food. *Tourism Review International*, 9(4), 365–378. <https://doi.org/10.3727/154427206776330571>
- Tang, Z., Shi, C. B., & Liu, Z. (2011). Sustainable Development of Tourism Industry in China under the Low-carbon Economy. *Energy Procedia*, 5, 1303–1307.
<https://doi.org/10.1016/j.egypro.2011.03.226>
- Yousaf, Z., Magdalena, R., Crenguța, I. S., Luminita, S., & Loredana-Maria, P. (2021). (PDF) *Harmonization of Green Motives and Green Business Strategies towards Sustainable Development of Hospitality and Tourism Industry: Green Environmental Policies*.
<https://doi.org/10.3390/su13126592>
- Zhang, J., & Zhang, Y. (2020). Low-carbon tourism system in an urban destination. *Current Issues in Tourism*, 23(13), 1688–1704. <https://doi.org/10.1080/13683500.2019.1641473>