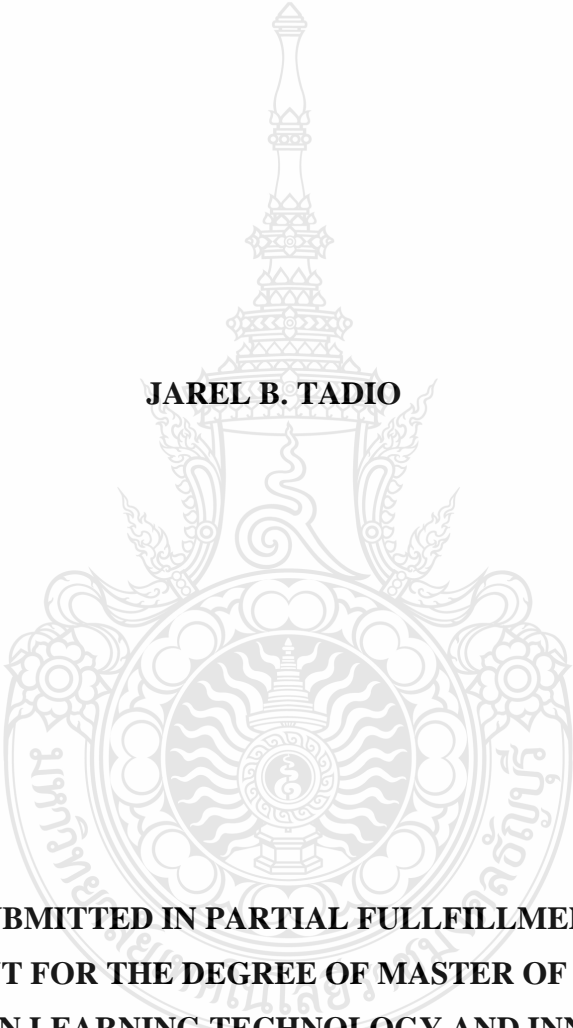


**THE DEVELOPMENT OF ONLINE LEARNING MODEL IN ART
APPRECIATION COURSE OF FRESHMEN HOSPITALITY MANAGEMENT
STUDENTS AT CAGAYAN STATE UNIVERSITY, PHILIPPINES**

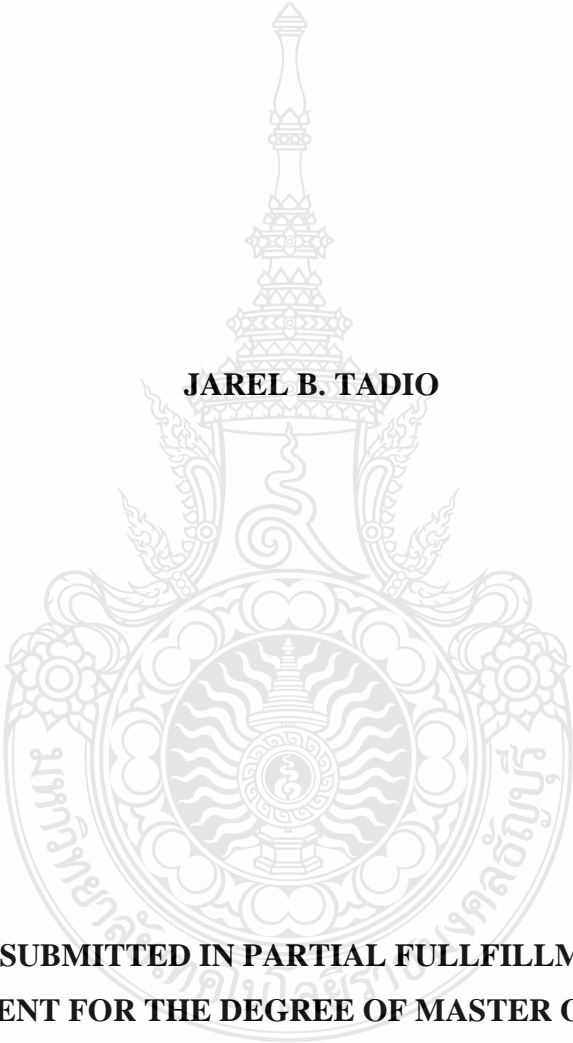
JAREL B. TADIO



**A THESIS SUBMITTED IN PARTIAL FULLFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTER OF EDUCATION
PROGRAM IN LEARNING TECHNOLOGY AND INNOVATION
FACULTY OF TECHNICAL EDUCATION
RAJAMANGALA UNIVERSITY OF TECHNOLOGY THANYABURI
ACADEMIC YEAR 2022
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คณะครุศาสตร์อุตสาหกรรม

มหาวิทยาลัยเทคโนโลยีราชมงคลธัญบุรี



Thesis Title The Development of Online Learning Model in Art Appreciation Course of Freshmen Hospitality Management Students at agayan State University, Philippines

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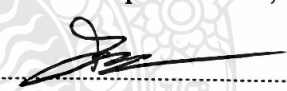
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หัวข้อวิทยานิพนธ์	การพัฒนารูปแบบการเรียนรู้ออนไลน์รายวิชาการชื่นชมศิลปะ ของนักศึกษาใหม่สาขาวิชาการจัดการการบริการที่ Cagayan State University ประเทศฟิลิปปินส์
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บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อประเมินประสิทธิผลของรูปแบบการเรียนรู้ออนไลน์ในรายวิชา Art Appreciation ของนักศึกษาสาขาวิชาการจัดการการบริการชั้นปีที่ 1

กลุ่มตัวอย่างที่ใช้ในการทดลองเพื่อทดสอบประสิทธิภาพของสื่อเพื่อการเรียนรู้ออนไลน์ คือ นักศึกษาชั้นปีที่ 1 จำนวน 26 คน ที่ลงทะเบียนภาคเรียนที่ 1 ปีการศึกษา 2563 - 2564 ในวิทยาลัย การจัดการการบริการที่ Cagayan State University, Andrews Campus, Philippines เครื่องมือที่ใช้ ในการวิจัย ได้แก่ คลิปวิดีโอเผยแพร่ทาง YouTube เพื่อการเรียนรู้การชื่นชมศิลปะและแบบทดสอบ วัดผลสัมฤทธิ์ทางการเรียน 15 ข้อ ซึ่งมีค่าความยากง่าย (p) อยู่ระหว่าง 0.38 ถึง 0.78 ค่าอำนาจจำแนก (r) ระหว่าง 0.20 ถึง 0.63 และมีค่าความเที่ยงเท่ากับ 0.74 เพื่อทดลองการเรียนรู้ออนไลน์อย่างมีประสิทธิภาพ การทดสอบแบ่งออกเป็นสามส่วน: 1) การทดสอบแบบตัวต่อตัวของนักเรียน 3 คน 2) การทดสอบกลุ่มย่อย ของนักเรียน 9 คน และ 3) การทดสอบกลุ่มภาคสนามของนักเรียน 26 คน กลุ่มตัวอย่างทำแบบทดสอบ ก่อนเรียน เรียนรู้จากคลิปวิดีโอที่โพสต์บน YouTube และทำแบบทดสอบหลังเรียน จากนั้นจึงคำนวณ คะแนนของการทดสอบโดยใช้โซลูชันของ Hovland et al สำหรับดัชนีประสิทธิผล

ผลการวิจัยพบว่า คลิปวิดีโอที่โพสต์บน YouTube สำหรับการทดลองในรายวิชา Art Appreciation สำหรับนักศึกษาสาขาวิชาการจัดการการบริการ ชั้นปีที่ 1 Hospitality Management มีดัชนีประสิทธิผล 0.58 ดังนั้น วิดีโอคลิปที่โพสต์บน Youtube จึงบรรลุวัตถุประสงค์ของงานวิจัยนี้และนำไปใช้ในการเรียน การสอนจริง และการเรียนรู้ออนไลน์ในรายวิชา Art Appreciation สำหรับนักศึกษาสาขาวิชาการจัดการ การบริการชั้นปีที่ 1 Hospitality Management

คำสำคัญ: ผลสัมฤทธิ์ทางการเรียน การเรียนออนไลน์ คลิปวิดีโอ เทคโนโลยีการเรียนรู้ด้วยตนเอง

Thesis Title	The Development of Online Learning Model in Art Appreciation Course of Freshmen Hospitality Management Students at Cagayan State University, Philippines
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Thesis Advisor	Assistant Professor Tiamyod Pasawano, Ed.D.
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Academic Year	2022

ABSTRACT

The objective of this research was to assess the effectiveness of online learning model in Art Appreciation course of the first-year Hospitality Management students.

The sample used in the experiment for trying out the efficiency of media for online learning were 26 first-year students who enrolled the first semester of 2020-2021 academic years in the College of Hospitality Management at Cagayan State University, Andrews Campus, Philippines. The instruments used in the research were a video-clip posted on Youtube for the learning of Art Appreciation and fifteen items of achievement test which were the difficulty value (p) ranging from 0.38 to 0.78, a discrimination power (r) between 0.20 to 0.63 and with the reliability of 0.74. To try out the learning online for efficiency, the tests were divided into three components: 1) one-to-one testing of 3 students, 2) small-group testing of 9 students, and 3) field group testing of 26 students. The samples took the pre-test, learned from the video-clip posted on YouTube and took the post-test. The scores of the tests were then calculated by using Hovland et al's solution for the effectiveness index.

The research results showed that the video-clip posted on YouTube for the experiment in Art Appreciation course for the Hospitality Management freshmen had effectiveness index 0.58. Therefore, the video-clip posted on YouTube had achieved the objective of this research and would be used for actual teaching and online learning in Art Appreciation course for the Hospitality Management freshmen.

Keywords: learning achievement, online learning, video-clip, self-directed technology

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Jarel B. Tadio

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CHAPTER 1

INTRODUCTION

1.1 Background of Study and Problem Statement

The previously emerged Coronavirus disease (COVID-19) is an infectious disease caused by the SARS-CoV-2 virus, originated in Wuhan, China, and was brought and spread to different countries all over the world from human to human transmission and was declared global pandemic by the World Health Organization (WHO) (Lone & Ahmad, 2020). Most people who are infected with the virus will have a moderate to mild respiratory infection and will get better without special treatment. However, a small number of people can be seriously ill and need clinical attention. The elderly and those with underlying clinical conditions are more likely to have extreme infections (World Health Organization, 2020).

Being informed and aware of the symptoms of the virus is the best way to prevent transmission. Also, avoid touching others and avoid being around the infected person. Avoiding crowded places, observing a meter of social distancing, wearing masks, frequent hand washing, and sanitizing are just some of the general public health standards to follow to avoid the rapid spread of the virus (WHO, 2020).

In Africa, there is an increase in mortality caused by continuous and rapid spread of the virus. However, with the strong and effective action control of the government to some of African countries like Ghana and South Africa, restrictions were lifted to help save their economy (Lone & Ahmad, 2020). Furthermore, the COVID-19 disease also spread infections in most rural areas in Latin America for over half of the population of the marginalized community thus overwhelming their health care system (Meneses-Navarro et al., 2020).

In the Philippines, appropriate alternative learning platforms were utilized (electronic and non-electronic learning methods, modules, self-directed learning activities, simulations, case-based scenarios, among others) in exchange for the required contact hours to achieve the course outcomes/program outcomes including evaluation and assessment based on the Higher Education Institution assessment of its instructional capabilities (Commission on Higher Education, 2020).

The Coronavirus Disease (COVID-19) pandemic drastically affect health, severely shocked the economy, and extremely changed in the global education system in most countries. Unexpected school closure were imposed to contain the spread of the virus, consequently classes canceled and students left out of school (Onyema et al., 2020). According to the research of (Barrot et al., 2021), different responses have been launched by the government to mitigate the adverse impact of the pandemic on education across the globe. Academic calendar shifts, instructional delivery, and curriculum revisions to name a few.

Though, students are knowledgeable on the need to follow precautionary measures, the minimum public health standard, including the symptoms of the virus and the imposition of community quarantine to mitigate the rapid spread of the virus (Baloran, 2020), which eventually led to school closure. They are hesitant to the online-blended learning approach implementation due to both technological and financial impediment (Baloran, 2020).

COVID-19 has accelerated the adaption of digital technology. Virtual school and meetings have become the norms. The immediate change in the mode of the education system from the traditional face-to-face to the online learning platform for the delivery of learning materials brought a massive adjustment to both the learners and teachers. Teachers and students struggle with their gadgets, internet connection, and skills in educational technology. This unforeseen shift of teaching and learning has widely affected also the student's capability to absorb and learn from a highly different educational perspective. In the research from (Pastor, 2020), it is found out that the majority of the students from one of the public university in the Philippines are not yet ready for synchronous online delivery and that asynchronous learning should be implemented during the extreme community quarantine.

The Cagayan State University (CSU) has their learning management system - CSU LENS (Cagayan State University-Learning Environment Network System) and maximizes the Learning Management System (LMS) - Moodle. Teachers can upload learning materials (i.e. documents in word, pdf, image, video clip etc.) and students on the other hand can access LMS using their student username and password. Learning and teaching experience of students and teachers can be synchronous, where lecturers and

learners are in real-time virtual class. Asynchronous mode on the other hand, where students can learn at their own pace. However, there are only few studies in the immediate transition of the Philippine education system in the comparison of online learning and modular setting during this pandemic. This led the researcher to study the learning achievement of online learning and develop an online learning model for freshmen students at Cagayan State University, Philippines. The researcher will conduct a pilot study between the online learning and modular setting with the following guided questions: What is the mean achievement of the respondents in the pre-test? What is the mean achievement of the respondents in the post-test? Is there a significant difference in the mean achievement of the students being taught in Art Appreciation with the use of online learning in comparison to those students taught in the use of modular?

1.2 Objectives of the Study

The study will assess the effectiveness of online learning in Art Appreciation to the freshmen hospitality management students in comparison to modular.

1.2.1 To develop a model of online learning in art appreciation to the freshmen hospitality management students in comparison to modular.

1.2.2 To study the efficacy of learning achievement of online learning in art appreciation to the freshmen hospitality management students in comparison to modular.

1.2.3 To study the students' satisfaction in online learning in art appreciation to the freshmen hospitality management students in comparison to modular.

1.3 Research Hypothesis

This study was guided by the hypothesis as follows:

1.3.1 The value of efficiency achieved with the developed model of online learning in Art Appreciation to the freshmen hospitality management students in comparison to modular of undergraduate students meets higher level.

1.3.2 Students have high level of learning achievement through online learning in Art Appreciation to the freshmen hospitality management students in comparison to modular

1.4 Scopes and Limitations of the Study

The scope of the study are the first year students in the College of Hospitality Management at Cagayan State University, Andrews Campus Philippines enrolled this first semester school year 2020-2021. It is limited to only one block composed of 26 students and to the methods used by the teacher in teaching Art Appreciation.

1.5 Definition of Terms

The following terms were defined based on how it is used in the study:

1.5.1 Online learning is a mode of learning where education takes place over the internet or referred to as “e-learning or fully virtual environment. It is one type of “distance learning that takes place across distance where learning environment that can connect students of diverse backgrounds who boast different perspective

1.5.2 Synchronous Learning is an interactive modality of online learning where students and teachers learn and teach in the same place, and at the same time in order for learning takes place.

1.5.3 Asynchronous Learning is an interactive modality of online learning where instruction and learning do not occur in the same place or the same time. Students can learn and access their online learning materials anytime and anywhere.

1.5.4 LENS - CSU-LENS or the Learning Environment Network System is the Moodle-based learning management system of the Cagayan State University in its effort to offer flexible teaching and learning to students or learners as its primary stakeholders.

1.5.5 Technological Competence refers to the skills and knowledge of students in using technology for online learning.

1.5.6 Student’s satisfaction deals with the perception of students and their attributes that may affect their online learning during pandemic.

1.5.7 Modular Distance Learning is the use of Modules made by teachers with different tasks and learning activities based from the essential learning competencies.

1.6 Conceptual Framework

Educators are re-appraising not only “what” should be taught, but also “how” it should be taught. His ability to create effective teaching and learning situations should grow with every single day he spends in the classroom.

Teaching is a profession according to Lardizabal (1991, p.11) one of the responsibilities of the teacher to his students should earnestly make learning experiences of the students enjoyable, fruitful and meaningful. Likewise, educator agree that appropriate approach play a vital role in the effectiveness and enhancement of classroom instruction with the end view of improving academic achievement of students and motivate to love the subject Art Appreciation. It entails concepts development. This can be a subject everyone can love and enjoy when one is taught to deep understand every detail of it.

Research Framework

Since this research paper will employ experimental research design, the framework below will serve as the researcher’s guide in the conduct of the study.

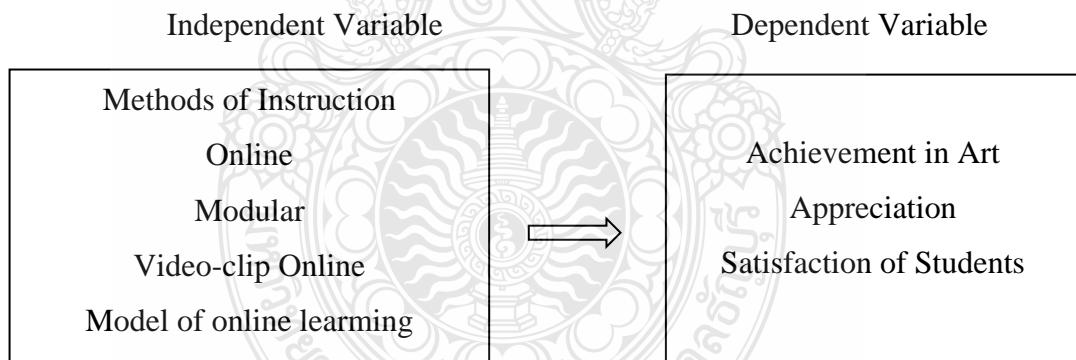


Figure 1.1 Research Framework

The independent variables in the framework are the online teaching and modular setting of teaching in Art Appreciation. The two methods that will be used in this study will be compared. Online teaching using the Video-clip online in Art Appreciation is expected to enhance achievement of the students and to develop their interest and love for the subject. The dependent variables, which are the achievement in the subject and satisfaction of students, are the focus of the investigation, which is influence by the independent variable shown by the two approaches in teaching Art Appreciation

including the video-clip online. Achievement in Art Appreciation therefore is dependent upon the effectiveness in teaching the subject with the use of online approach. The satisfaction of students on the other hand is directly dependent on the video-clip online that was used in the online learning approach.

1.7 Significance of the Study

The study is deemed important to the following:

1.7.1 Students are able to learn and understand deeply their technological competence toward online learning and modular setting during pandemic. Moreover, an inclusive investigation of their learning ability toward synchronous and asynchronous mode of online learning.

1.7.2 Teachers can use it as a guide in delivering learning materials both online and modular and a means to evaluate the students' technological competence.

1.7.3 Administrators are able to learn the students' attitude toward online learning and their level of technological competence which is necessary in developing an inclusive Learning Environment Network System.

1.7.4 Researchers are able to benefit this academic research through an in-depth understanding of the online learning in his teaching profession.

1.7.5 Future Researchers can use this article as their basis in future studies related to online learning and technological competence especially in this time of pandemic with the use of online learning.

CHAPTER 2

REVIEW OF THE LITERATURE

In this research, study the learning achievement of online teaching at Cagayan State University, Philippines. This chapter provides an overview of previous research on knowledge sharing and intranets. It introduces the framework for the case study that comprises the main focus of the research described in this thesis. The researchers researched the following relevant research papers:

2.1 Online Models for Consideration

2.1.1 Synchronous and asynchronous learning

2.1.2 Challenges of teachers using modular modality

2.1.3 Advantages and disadvantages of modular distance learning

2.2 Technological Competence for Successful Online Learning

2.2.1 Technological Competence

2.2.2 Online Learning Strategies for Success

2.3 Attitude and Technological Competence of Learners and Teachers toward Online Learning and Teaching

2.4 Literature Review of the Relevant Research

2.1 Online Models for Consideration

Choosing an online model could depend on the course topic, learning objectives, the level of the students, and a range of other variables. Below are two models to consider.

2.1.1 Synchronous and asynchronous learning

Synchronous-driven online courses are those in which the instructor and students meet regularly online in real-time meetings for lectures or other activities. The course may also be supplemented with other online activities or materials, but the majority of the student seat time is offered through synchronous meetings. It encourages social presence through live meetings and meetings can also be recorded for students who may have to miss a session. On the other hand, it is less flexible since the instructor and students need to meet together on a regular schedule. If students are working part- or full-time, or if they are attending the course from different time zones, the schedule may be

challenging for some students. Hence, teachers are expected to adjust their teaching plans and schedule accordingly to allow for regular online meeting times and ensure that the syllabus clearly articulates the mandatory synchronous meetings for the learners.

Asynchronous-driven online courses are those in which students are rarely if ever, required to meet in a synchronous setting and instead complete asynchronous learning activities and engagement on their own time. Some synchronous online office hours or group meetings may be included in this type of course, but the majority of materials will be available to students through the Canvas course site. It is designed to meet the needs of students with a range of schedules and time zones by being as flexible as possible, both instructors and students often find this kind of course helps to keep their schedules flexible since there are few requirements for mandatory real-time sessions and an also be helpful learning environments for students who prefer to have a little more time to think and process course materials, so this model can be a good fit for courses that have advanced theory, applied theory, or other approaches where students are engaging in a lot of analysis or synthesis-based tasks. On the other hand, this model needs intentional social presence activities to ensure that students feel connected to the instructor and to each other. These kinds of activities often need to be designed in advance and included in the course throughout the term to provide social connections in addition to a relationship between the students and the content. Hence, this model needs to adjust teachers' teaching plans accordingly to allow for asynchronous activities and tasks and ensure that the syllabus clearly articulates the asynchronous components for the learners.

2.1.2 Challenges of teachers using modular modality

In the study of Abante (2021), a comparative analysis on the challenges of online learning modality and modular learning modality. It examined the challenges of both public and private schools in the Philippines utilizing online and modular learning modality, interview revealed that internet connectivity is the common and most encountered problem both public and private school teachers. Moreover, in of the research of Castroverde and Acala (2021), with ten (10) professional public secondary teachers using semi-structured questionnaire with open-ended questions. Finding shows that various methods were utilized by teachers to cope with different challenges in the new normal of education. Being flexible and patient, having time management, adapting

to the changes brought by the new normal trend in education, innovating teaching strategies, being optimistic, providing alternative plans, and equipping oneself with the necessary skills for the new normal ways of education are the ways how teachers deal with teaching challenges in modular setting.

2.1.3 Advantages and disadvantages of Modular distance learning

In an attempt to continue the education the Philippines in the middle of the pandemic, Modular (Printed), Modular (Digitized), Online, Educational TV, Radio-Based Instruction, Home Schooling and Blended Learning are the learning modalities implemented by the Department of Education and the Commission on Higher Education. According to the research of (Anzaldo, 2021) entitled Modular distance learning in the new normal education amidst Covid-19, he listed several advantages and disadvantages in using modular learning modality. Advantages includes: 1) Learning continues when the learners adapt to change, 2) Parents realize their important role in their children's education, 3) Modular distance learning teach the learners values as well as the lessons, 4) Teachers become open-minded with the challenges brought by the pandemic. However, disadvantages on the other hand includes: 1) Not all learners do their modules committedly yes, this is 100% true as per survey, 2) Some parents pamper their children and do their task instead of them, 3) Parents are having a hard time teaching their children with modules.

2.2 Technological Competence for Successful Online Learning

- 1) Knowledge of computer terminology, such as browser, operating system, application, software, files, documents, icon, etc.
- 2) Understanding of basic computer hardware and software with the ability to perform computer operations, such as:
 - a. Using keyboard and mouse
 - b. Managing files and folders: save, name, copy, move, backup, rename, delete, check properties
 - c. Software installation, security, and virus protection
 - d. Using software applications, such as Word, PowerPoint, Excel, email

e. Knowledge of copying and pasting, spell-checking, saving files in different formats

f. Uploading and downloading attachments

3) Internet skills (connecting, accessing sites, using browsers)

4) Ability to use online communication tools, such as email (create, send, receive, reply, print, send/receive attachments), discussion boards (read, search, post, reply, follow threads), chats, and messengers

5) Perform online research using various search engines and library databases

6) Create online accounts

2.2.1 Technological Competence

Technological competence and access when virtual teaching is accounted for, two essential concerns come to the core, technological competence and access. Teachers' technological competence is an obvious necessity (Cooperman, 2018). It means that a teacher could not perform virtual instruction if the teacher is ill-equipped in terms of the skills and knowledge in operating, use, and troubleshooting digital devices and technological applications. Hence, being technologically literate is a must among teachers most especially to those involved in virtual teaching (Yücel, & Koçak, 2010). In the context of Filipino teachers, in the study of Javier (2020), the teachers reported themselves, in general, to be 'competent' in the use of technology especially those that are utilized in the conduct of virtual instruction. However, the said investigation was limited to teachers teaching the Filipino subject. Thus, in this study, it was endeavored to determine the technological competence of Science teachers. Additionally, the study investigated the extent of technological access of the same respondents as there is no or at best limited study in that said dimension.

Antonio, A. (2020) concluded that teachers to teach effectively in the digital platform, teachers must possess a requisite – technological competence. His findings revealed that the teachers estimated themselves to be technologically 'competent' and gender difference in technological competence persists.

The model of Norris, D. M. et.al. (2011) on evolution of learning and competence-building technologies, grounded in examples of current practice. The model imagines five simple stages in how institutions use 'expeditionary change' to innovate

more nimbly. It builds upon three assertions. First, the pervasiveness of web-based knowledge-sharing in higher education's communities, observatories and social networks makes it easier to: introduce relevant technologies, find people doing similar things, learn from their experiences, find and collaborate with early adopters of learning technologies, hear about relevant innovations, and discover and exploit news of opportunities, threats and trends. Second, expeditionary change based on such knowledge-sharing facilitates transformations in: production functions for learning, roles of faculty and mentors, business models, patterns and cadences of interactivity, use of open resources, and the roles of learners. Third, those transformations make it easier for disruptive forms of higher education to emerge; for example, dynamically updated curricula that address emerging and important knowledge gaps, and thereby increase students' employability.

Drenman, J. et.al. (2005). derived measures of perceptions of technology from research on the Technology Acceptance Model and used locus of control and innovative attitude as indicators of an autonomous and innovative learning in response to recent technological advances and the trend toward flexible learning in education, the authors examined the factors affecting student satisfaction with flexible online learning. He identified 2 key student attributes of student satisfaction: (a) positive perceptions of technology in terms of ease of access and use of online flexible learning material and (b) autonomous and innovative learning styles. He concluded in his study that student satisfaction is influenced by positive perceptions toward technology and an autonomous learning mode

Mitchell, B. (2009) explores attitudes towards and affecting online learning implementation (OLI). In recent years there has been greater acceptance of online learning (OL) by institutional decision-makers, as evidenced by higher levels of institutional involvement; nevertheless, the increase in faculty acceptance lags behind. This paper proposes that faculty acceptance of Online teaching which is influenced by attitudes related to four variables that affect practice change: intellectual reluctance, support, change and cost-benefit. Inherently, these attitudes translate into behaviors that influence the level of resistance toward OLI.

Studies have been conducted on university students' continuous intention to learn online from the perspectives of learning motivation and capability, perceptions

or attitudes, and online learning experiences. However, few have examined how the above factors will relate to each other and contribute to students' online learning intention. This research explored 94 university students' online learning attitudes and experiences in a blended course. The researchers investigated the changes in the participants' attitudes toward online learning and the relationships between their self-regulated learning capability, online interactions, attitudes, and online learning intention. These students participated in a pre- and post-survey at the beginning and end of the course. They also completed six weekly reports commenting on their learning activities of the week. At the end of the course, interviews were administered to eight participants to gather detailed information about their online learning experiences. It was found that (a) the participants' online learning attitudes were generally positive and increased when completing the course; and (b) the participants' continuous intention to learn online was significantly predicted by four self-regulatory factors and attitudes, mediated through perceived online social interactions. The analysis of the interviewees' further comments provided more insights about the potential factors contributing to their online learning attitude changes. The strategies for future online course design with a view of improving students' self-regulated learning skills are discussed in this paper. (Zhu, Y. 2020)

Ho, L. et. al. (2010) their study reveals that both e-learning system quality and e-learning readiness have a direct and significant impact on e-learners' competency. However, e-learning system quality and e-learning readiness influence learning outcomes indirectly through e-learners' competency. In addition, e-learners' competency has direct and positive significant influence on learning outcomes. The findings created an understanding of what attributes of external and internal factors influence the outcome of e-learning in high tech companies. In terms of research contributions, the study extends previous researches by identifying the mediating effect of e-learning competency on the relationship between e-learning system quality, e-learning readiness and learning outcome. Organizations that would like to adopt e-learning to improve employees' knowledge and skills will be able to apply strategies based on the findings from the research.

The working group of this research that aims to determine the level of the basic technology competency of teachers' candidate who are the students of education

faculty of today and the teachers of future consists of 120 Biology, Physics, Chemistry and Mathematics teachers candidate from Education Faculty in Hacettepe University. As a data collecting tool The Basic Technology Competency Scale for Educators is used which is developed by Flowers and Algozzine (2000) and validity and reliability tests are done by Erkan Tekinarslan (2008) ($\alpha = .95$). At the end of the research process it's found that most of the teachers' candidate have basic technology competency at least mediate level and male teachers have higher competency than female teachers and when analyzed according to the branches it's seen that there are statistically meaningful differences among teachers. (Yücel, A. S., & Kocak, C., 2010)

2.2.2 Online Learning Strategies for Success

Students are taking advantage of online degree programs in record numbers. In 2017, six million students enrolled in at least one online course to help advance their careers, change jobs, or fulfill personal goals.

It should come as no surprise that enrollment numbers are growing, as online degree programs offer many unique benefits to learners, including a high degree of flexibility. Online courses allow you to learn whenever, wherever, and however works best for you, making it easier to earn a degree while balancing work and family commitments. And without having to attend classes in person, online learning affords you access to top degree programs across the country that might have otherwise been inaccessible or highly inconvenient.

Are Online Classes Easier? It's a misconception, that online degrees are easier than their on-campus counterparts. An online program demands the same focus and motivation as is required in a traditional classroom setting. Factor in additional distractions that online students encounter - such as children in the home while taking classes - and the workload can easily feel more challenging.

Online courses present challenges if you're not prepared. But, if you develop skills for effective online learning, you'll find the courses can be an excellent alternative to a traditional classroom setting. Here are some tips for online learning success to make sure you get the most value out of your next class.

10 Online Learning Strategies for Success

1) **Get Organized**, Before the semester begins, ensure you have the technical capability to access the required course materials, including e-books, online tools, and course websites. Take the time to practice navigating the online system so you'll be prepared for your first class. This way you can focus on learning instead of struggling to log in five minutes into the lecture. Also, just as you would in a physical classroom, make sure you have materials on hand to take reliable notes. Keeping a record of your work throughout the semester will come in handy during final exams.

2) **Set Up Your Workspace**, Set up a dedicated learning environment for studying. By completing your work there repeatedly, you'll begin to establish a routine. Not all students are alike - some work best listening to music, while others need peace and quiet. Experiment to discover which type of setting boosts your productivity. Whether your workspace is your kitchen table or the corner booth in a local coffee shop, just make sure you have a strong internet connection to access your coursework.

When choosing a workspace, try to limit distractions as much as possible, both physically and online. If you're at home, resist the urge to turn on the television or finish that last load of laundry. Online, use apps like Freedom or Cold Turkey to limit interruptions and block social media sites that might compete for your attention during lectures.

3) **Figure Out How You Learn Best**, Once you've established where you'll learn, think about when and how you accomplish your best work. If you're a morning person, make time to study first thing. More of a night owl? Set aside an hour or two after dinner to cozy up to your computer. If the kids require your morning and evening attention, try to carve out a study session mid-day while they're at school. Brew your usual cup of coffee, put on your go-to playlist, and do whatever you need to get into the zone and down to business.

Not everyone learns the same way, so think about what types of information help you best grasp new concepts and employ relevant study strategies. If you're a visual learner, for example, print out transcripts of the video lectures to review. Learn best by listening? Make sure to build time into your schedule to play and replay all audio- and video-based course content.

4) **Make A Schedule,** Without a professor regularly checking in, it's important to leverage your time management skills. Glance over the syllabus before your first day of class and make note of major assignments. Mark them on a calendar you check regularly so you know what workload is coming in the weeks ahead. Don't forget to factor in prior commitments that may interfere with your regular study schedule, such as weddings or vacations, so you can give yourself enough extra time to complete assignments.

Commit to making your online coursework part of your weekly routine. Break up your workload into chunks by dedicating certain hours each week to reading, watching lectures, writing assignments, studying, and participating in forums. Then, set reminders for yourself to complete the tasks. Treat these blocks of time as seriously as you would a face-to-face lesson by showing up, letting others know you are unavailable during those times, and consistently using your designated workspace. Set a timer and give yourself permission to move on to other tasks once the time is up.

5) **Be an Active Participant,** Take initiative by reading materials, reaching out to classmates and instructors, and conducting additional research as needed. Productive online learners focus on acquiring and utilizing feedback for future coursework. Students who take time to engage with their instructors and classmates also tend to have the most success in their classes.

6) **Stay Connected,** Just because you aren't physically in the same location, doesn't mean you can't get to know your fellow classmates. Build relationships with other students by introducing yourself and engaging in online discussion boards. Make an effort to ask and answer questions to enhance your understanding of the course material and build a bond with other students. Your peers can be a valuable resource when preparing for exams or asking for feedback on assignments. Make connections with the other students in your online classroom and you'll have a built-in study group at your fingertips.

Don't be afraid to reach out to your instructor to introduce yourself or ask questions, either. They are eager to engage one-on-one with their students, whether online or in person. And, if you do fall behind, speak up. Don't wait until an assignment is almost due to ask questions or report issues. Email your professor and be proactive in asking for help.

7) **Have an Open Mind**, Some online learners feel more comfortable sharing their thoughts and opinions virtually than in the classroom. Online learning provides students with the time they need to actively reflect and organize their thoughts before answering a question or making a comment. Having an open mind helps students interact with the material—and fosters a more engaged and open community.

8) **Ask Questions**, The best online learners don't hesitate to ask questions. They aren't afraid to request clarification or guidance from other students and instructors. By doing this, they avoid confusion, become more engaged with the content, broaden their knowledge, and deepen relationships with their classmates. Posting to a group forum also allows online learners to ask questions other students may have. Professors encourage this type of interaction and value the community it builds.

9) **Hold Yourself Accountable** by set goals at the beginning of the semester and check in with yourself weekly. In a traditional classroom setting, you'll often receive verbal or visual reminders of an assignment's upcoming due date. But without a professor actively reminding you, it's up to you to make sure you've allotted enough time to complete the work so you're not starting an assignment the day before it's due. If you're having trouble holding yourself responsible, pair up with a fellow classmate, or enlist the help of a spouse or friend to check in as an accountability partner. By being organized, proactive, and self-aware, you can get the most from your online class even when life outside of school becomes chaotic.

10) **Setting Yourself Up For Success** by earning an online degree is a great opportunity to impress future employers and advance your career in a way that works for you. Adjusting to the nuances of distance learning, however, can take some getting used to. Use the nine tips and strategies above to become a successful online learner and take your skills to the next level. (Northeastern University, 2020)

2.3 Attitude and Technological Competence of Learners and Teachers toward Online Learning and Teaching

Teachers have always been the key in the utilization of any reform-based innovations (e.g., online or virtual teaching, distance education, flexible learning). According to Semerci and Aydin (2018), attitude can be defined as an element that guides the behavior of an individual in line with his feelings and thoughts. In addition, attitude has come to be considered as the level of positive or negative effect related with a specific object or belief. Huang and Liaw (2005) argues that the positive attitudes of teachers towards their competence in using computers will affect how they deliver knowledge to the students. In the study of Keeton (2004), he found out that teachers have positive attitudes towards the online instructional resources that they use for which they believe is significant in creating an online environment that stimulates learning to the students. In his quantitative study that employed online surveys and supplemented by short phone interviews, Gasaymeh (2009) examined the attitudes toward internet-based distance education by the faculty members from two Jordanian public universities. The researcher also explored the relationship between the faculty members' attitudes toward internet-based distance education and their perceptions of their level of computer and internet access, their readiness for time commitments required for internet based distance education, level of institutional support, their level of computer and internet skills, and their perceived value of internet-based distance education. Results indicated that faculty members tended to have moderately favorable attitudes toward internet-based distance education.

Technology is spreading into schools, opening up diverse opportunities for both students and teachers. But merely being equipped with digital technology does not mean that students and teachers are able to use it effectively for learning and teaching (Considine, Horton & Moorman, 2009). For that to happen, students and teachers need basic digital skills, i.e. skills to understand, evaluate and communicate with digital technology in daily routines (Ferrari, 2012; Fraillon, Ainley, Schulz, & Friedman, 2014; KMK, 2016 & Krumsvik, 2011). Beyond basic digital skills, certain types of knowledge related to digital technology, instruction, and teaching content are assumed to be necessary for teachers when teaching with technology (see Mishra & Koehler, 2006).

More recent approaches build upon knowledge-centered models, claiming that not only knowledge but also technology-related teaching skills are required to use digital technologies efficiently during teaching (Digital Campus of Bavaria [DCB], 2017; Ertmer & Ottenbreit-Leftwich, 2010; Kelly & McAnear, 2002; Krumsvik, 2011; Simons, Meeus, & T'Sas, 2017 and Thomas & Knezek, 2008). Accordingly, teachers must be qualified to provide technology-supported learning opportunities for their students, be able to use digital technology and be aware of how digital technology can support students' learning (Kelly & McAnear, 2002).

Claiming that all teachers need to have such technology-related teaching skills means putting new challenges and responsibilities on teachers' shoulders. However, easy-to-use instruments to assess such teaching skills and thus indicate whether teachers are prepared to meet their new standards and demands are lacking. Teachers have been described as the ultimate change agents who need to engage in lifelong learning in order to successfully advance teaching through the inclusion of digital technologies (G. Fischer, 2000). In this respect, teachers may benefit from tools that guide them in their professional development. An instrument that reliably and validly measures self-assessed teachers' technology-related teaching skills can be helpful for teachers to identify areas of excellence, areas of progress and areas for improvement within this lifelong learning process.

In this study, we validated a scenario-based self-assessment instrument called IN.K19, which is based on the K19 framework developed by the interdisciplinary Digital Campus of Bavaria research group (DCB, 2017). It postulates 19 technology-related teaching skills inferred from and grouped according to three phases of action with respect to classroom instruction. The three phases address general problem-solving stages within teaching with technology (Ertmer & Ottenbreit-Leftwich, 2010; Zimmerman & Campillo, 2003): planning, implementing, and evaluating teaching with technology. Also included was a sharing phase, which covers follow-up communication after lessons for the purpose of professional collaboration and development of lessons. The scenario-based instrument measures self-assessed technology-related teaching skills and attitudes towards technology-related teaching with respect to each of the four phases. IN.K19 seeks to provide a reliable and accessible tool to gather comprehensive empirical data on teachers'

self-assessed technology-related teaching skills to inform research and subsequent decision-making in the fields of teacher training, school development and educational policies. IN.K19 is a generic instrument for all teachers, regardless of the subjects they teach. In this article, we seek to validate the instrument by assessing its factorial and predictive validity.

2.3.1 Technology-related teaching skills and attitudes

Generally, pre-service and in-service teachers are considered to require a certain level of competency to meet the standards and demands of a digitalized world (Kirschner, 2015). Competency in this broad sense refers to a combination of complex cognitive skills, highly integrated knowledge structures, and attitudes (Blömeke, Gustafsson, & Shavelson, 2015; Kunter, Klusmann, Baumert, Richter, Voss, & Hachfeld, 2013; Van Merriënboer & Kirschner, 2017). Taking teachers' knowledge about teaching with digital technologies as a starting point, research frequently builds on the TPACK model (Mishra & Koehler, 2006). TPACK, in turn, builds on Shulman (1986), who postulated that teachers need a combined knowledge of content and pedagogy known as pedagogical content knowledge. The TPACK model extends this perspective by adding a third component to Shulman's (1986) model of pedagogical knowledge (PK) and content knowledge (CK): technological knowledge (TK; Mishra & Koehler, 2006). Moreover, four hybrid components are formed at the intersections of the different knowledge areas, known as pedagogical content knowledge (PCK), technological pedagogical knowledge (TPK), technological content knowledge (TCK), and technological pedagogical content knowledge (TPCK; Mishra & Koehler, 2006; Schmid, Brianza, & Petko, 2020).

While TPACK focusses on different types of knowledge, research has moved beyond teacher knowledge to explore other, more comprehensive concepts (Petko, 2020). The notion of complex cognitive skills for teaching with digital technology puts a stronger focus on what teachers need to be able to do with technology in class to be digitally literate educators (DCB, 2017; Kelly & McAnear, 2002). We conceptualize technology-related teaching skills as the combination and integration of conceptual knowledge facets and action-oriented knowledge facets. Conceptual knowledge facets refer to knowledge on (scientifically based) models and frameworks that link digital

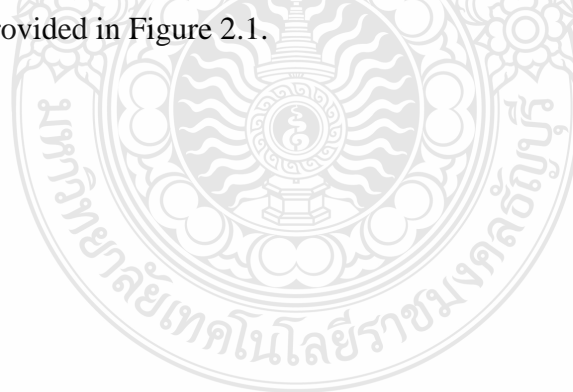
technologies and successful teaching and learning in the classroom. Action-oriented knowledge facets enable enacting teaching and learning with digital technologies in the classroom, including solving emerging problems. These action-oriented knowledge facets may also include giving advice to other teachers on enacting (and solving problems in) technology enhanced teaching scenarios.

Referring back to teachers' competency to meet the standards and demands of a digitalized world (Kirschner, 2015), not only technology-related teaching skills, but also attitudes towards technology-related teaching are important to consider (Van Merriënboer & Kirschner, 2017). An attitude can be defined as a negatively to positively valenced evaluation of a topic, person, or event (Heddy, Danielson, Sinatra, & Graham, 2017). Thus, attitudes toward technology-related teaching refer to negatively to positively valenced evaluations of teaching with digital technologies.

2.3.2 Technology-related teaching skills in different phases of teaching with digital technology, Technology-related teaching skills focus on what teachers need in order to plan, design, and successfully implement their teaching activities and then to scaffold and support students' learning processes with digital technologies (Claro et al., 2018). Specifically, technology-related teaching skills include identifying and using appropriate technologies in a way that facilitates a broad range of learning activities, especially those relevant for students' knowledge application and skill development (Chi, 2009; Chi & Wylie, 2014).

Existing frameworks provide conceptualizations of teaching activities involving digital technologies (see Kelly & McAnear, 2002; Krumsvik, 2011). However, they do not offer a concrete operationalization of technology-related teaching skills, although this is precisely what is needed to design situational, adaptive learning opportunities to support students' learning outcomes. In contrast, the K19 framework, aims to establish a closer connection between technology-related teaching skills and actual technology-related classroom learning activities (DCB, 2017). Thus, the framework operationalizes technology-related teaching skills in different phases of teaching with and about digital technologies and seeks to outline and systematize the core technology-related skills teachers need in each of these phases. K19 is based on the assumption that teachers, just like their students and all people in a digitalized world

irrespective of their profession, need basic digital skills, which combine conceptual and action-oriented TK facets. In addition to these basic digital skills, teachers are expected to not only have instrumental and critical skills regarding the use of digital technology in their everyday lives, but also skills related to teaching with digital technologies, which combine conceptual knowledge facets and corresponding action-oriented knowledge facets of TPK. Although it is clear that subject-specific conceptual knowledge facets and corresponding action-oriented facets of TPCK are important for teachers as well (Mishra & Koehler, 2006), the K19 framework is generic as it postulates technology-related teaching skills as relevant for all teachers. The framework comprises the 19 technology-related teaching skills that are rooted in problem-solving stages teachers typically proceed through in different phases of teaching with and about digital technology: planning (see Section 1.1.1), implementing (see Section 1.1.2), evaluating (see Section 1.1.3), and sharing (see Section 1.1.4) digitally supported learning environments (Ertmer & Ottenbreit-Leftwich, 2010; Zimmerman & Campillo, 2003). This ultimately cyclical model can be helpful to identify and specify which particular skills teachers need in order to solve the technology-related problems that typically arise in the preparation of lessons (planning), in the classroom (implementing), after lessons (evaluating) and as part of their collaborative development of lessons (sharing). An overview of the 19 technology-related teaching skills is provided in Figure 2.1.



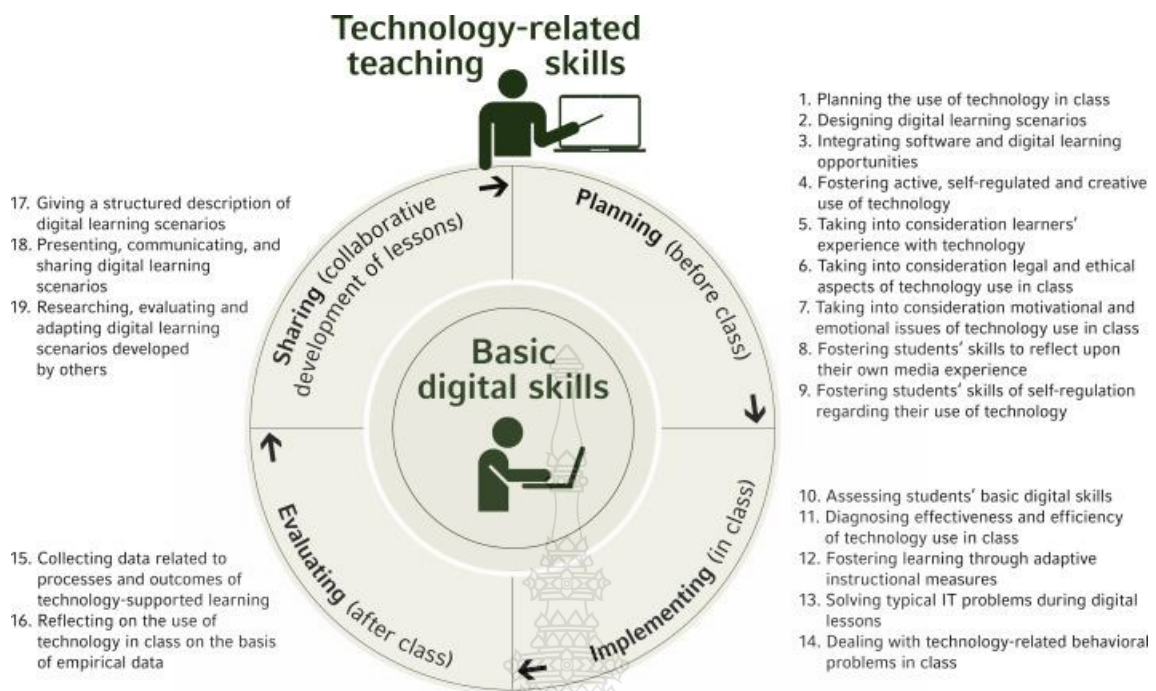


Figure 2.1 Model of technology-related teaching skills in the planning.

2.4 Literature Review of the Relevant Research

Khine (2001) found a significant relationship between the attitudes of teachers and the use of computer instructional materials. These educational resources should be relevant in providing lessons through virtual teaching. On the other hand, Kumar and Kumar (2003) posited that the positive attitude of teachers towards the use of computers in providing lessons depends strongly on the years of teaching experience of the participants. The study of Gasaymeh (2009) established significant positive correlation between faculty members' attitudes toward internet-based distance education and four independent variables: (a) computer and internet access; (b) time commitments; (c) computer and internet skills; and (d) perceived value. Meanwhile, there was a negative correlation between faculty members' attitudes toward internet-based distance education and their provided institutional support.

Sex is an essential variable to be considered. It appears as an ever-investigated construct variable with other research factors. Previous studies provide inconclusive results. In the study of Javier (2020), it was revealed among Filipino language teachers that the male and female teachers do not significantly differ in their attitude toward the teaching of the Filipino subject online. The study found out that gender is not a factor that

influence teachers, which manifest a ‘somehow negative’ attitude toward online teaching. This finding is similar to that of Onasanya et al. (2010). In their aim to examine the possible factors that significantly influence the attitudes of 150 higher education teachers, the researchers found Electronic copy available at: <https://ssrn.com/abstract=3654236> that gender did not exert effects on the teachers’ attitudes on the integration of technological tools to facilitate students’ learning. With respect to technological competence, authors remain yet to come to an agreement. Shahaani (1993) stated in her study that males and females are equally competent; however, Yücel, and Koçak (2010) marked that males are more technologically competent than females. On another hand, Javier (2020) found that male teachers reported, on the average, to be ‘not competent’ while the females claimed to be ‘competent’. But her investigation disclosed that there is no significant difference in the technological competence of the teachers across gender.

As Rana (2012) points out, positive attitude is an important indicator of willingness and initial step in effective integration. Teachers are the key players in schools. They are catalysts who play significant roles in technology in the school and classrooms. It is therefore necessary for teachers to develop positive attitudes towards online teaching since it has been found to be linked to usage and intention to use. As Gibson et al. (2014) opined, teachers are they key stakeholders of education and their attitude on adoption of e-learning (i.e., virtual/online teaching) has also significant impact on students’ attitude formation towards it.

The study of Dela Rama, J. M., et.al, (2020) enlisted a total of 256 purposively selected teachers assigned to teach Science subjects. Their investigation intended to determine whether there is a gender divide among variables of the study, and that whether a significant relationship exist among the respondents’ attitude toward online teaching, technological competence and access.

The study of (Javier, C. L., 2020) aimed to determine the attitude of the respondents toward online teaching and identify teachers’ technological competence. In addition, the study also intended to determine whether a relationship exists between the main variables, and whether a gender gap could be found with respect to attitude toward online teaching and teachers’ technological competence. Her study disclosed that the respondents’ attitude is characterized to be ‘somehow negative’ and they claimed to be technologically ‘competent’.

The existence of gender gap with respect to attitude and competence; however, a significant positive and linear relationship was drawn between the variables attitude and competence (p-value = 0.000, r-value = 0.586).

Thompson, L. (2005) his qualitative study was conducted to explore seven Chinese graduate students' experiences of and attitudes to taking online courses in the USA. All seven participants indicated that online learning was an interesting experience for them, however, they had mixed attitudes toward this unfamiliar mode of learning. The participants pointed out that easy resource sharing, easy record keeping and convenience of the discussion board were features of online learning that they liked the most. On the other hand, their writing skills in English, insufficient and deferred feedback and the lack of cultural exchange were their major concerns regarding online learning. Recommendations were provided for Chinese students on how to prepare for and how to succeed in online courses. Online instructors were also given recommendations regarding how to integrate teaching strategies to promote diversity and cultural understanding.

Narag, E. R. (2016) ascertained the correlation between achievement and attitude of the first year criminology students towards college algebra with plane trigonometry. The researcher made use of the descriptive correlational method of research. The questionnaire and the semi-final grades were the primary tools in obtaining the information and data. This was adopted from Dr. Milagros Ibe of UP-Diliman, Quezon City. The statistical tools that were used in the study were the mathematical attitude score, the item mean, the t-test, the Pearson Product Moment Correlation(r) and the t for r. There were 251 freshmen criminology students involved in the study. The level of performance in Math 123 was mainly fair due to the fact that mathematics is not the concentration of their course. On the attitude towards their subject, findings revealed that the respondents have generally had a positive attitude towards mathematics. The two groups, the male and female criminology students has a mean difference of 2.39, but when the score were subjected to t-test, it was found out that a significant difference does not exist between the attitude of the female and male respondents towards their subject at 0.05 level of significance. In ascertain if there is a correlation between the achievement and attitude of the respondents towards their subject Math 123, the study revealed and indicates a strong significant relationship between achievement and attitude.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter discussed the research design which is plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problems. According to Jahoda, et.al. A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

3.1 Research Design

3.2 Respondents of the Study

3.3 Data Gathering Procedures

3.4 Statistical Tools

3.1 Research Design

Since this study attempted to assess the effectiveness of online teaching in Art Appreciation, the true - experimental research design, which was used of pre-test and post-test to two-matched groups. The design involved the comparison of the mean achievement of students that were exposed to online teaching and those that were exposed to the modular setting.

3.2 Respondents of the Study

Before the conduct of the study there where 120 total population of freshmen students, the teacher handling the subject, Dr. Edlyn Narag invited a psychometrician to administer the IQ test. The test was administered based exactly on the test manual of administration to ensure validity and reliability of results. The result of the test shows that the respondents of the study were composed of 30 freshmen Hospitality Management of Cagayan State University from which two matched groups were formed for the purpose of the study: the experimental group and the control group. The thirty (30) students were equated to the two (2) groups through the following variables: age, sex and I.Q. The researcher made use of random sampling in determining which group is assigned to the experimental and the control group.

3.3 Data Gathering Procedures

3.3.1 The test will be given to control group and experimental group through google forms. Originally, the two groups were composed of fifty students. However, after the conduct of the IQ test, the results was interpreted by the psychometrician according to percentile rank and were given verbal descriptions ranging from Superior (none), Above Average (AA), Average (A), Below Average (BA) and low (none). After matching the results based on their age, sex and IQ, there were only 2 males and 11 females left in each group. The twenty-six students left were equated to the two groups; namely; the experimental and the control groups. Both groups will be given pre-test before the start of experimentation in the teaching of Art Appreciation.

3.3.2 After the topics that will be presented and discussed the students will be given a post-test. In the second group topics will be presented through the use of modules. Similarly, both groups will be given post-test.

3.3.3 In order to take good care of the time variable, the schedule of both classes was set at 7-10 in the morning Monday for the experimental and control group. The teacher assigned in this subject will take care of both groups.

3.4 Statistical Tools

This study made use of the following statistical tools, which are needed in the analysis of the data. Frequency counts and percentage was used to categorize the respondents. To assess if the two groups differ significantly in the achievement pre-test and post-test, t-test for dependent or correlated means will be utilized. Likewise, the mean result of the performance between the two groups will be tested using the t-test.

The collected quantitative data will be analyzed using, descriptive statistics, Chi-square test of association, and independent T test. The data analysis of the in-depth interviews will also be done using the stated research questions for the study as a guide.

The average score is obtained from the formula below.

$$\bar{X} = \frac{\sum_{i=1}^N x_i}{N}$$

with \bar{X} is arithmetic mean
 x_i is the value of the data of the population i
 i is the order of the population i by $i = 1, 2, 3, \dots, N$
 N is the total number of people interested in studying

Standard Deviation

$$S^2 = \frac{\sum_{i=1}^N (x_i - \bar{X})^2}{N - 1}$$

with $S.D.$ is standard Deviation
 \bar{X} is Arithmetic mean
 x_i is the value of the data of the population i
 i is the order of the population i by $i = 1, 2, 3, \dots, N$
 N is the total number of people interested in studying

CHAPTER 4

RESEARCH RESULT

This chapter reports the descriptive analysis of the responses from online learning and modular setting of teaching in art appreciation. The two methods that were used in this study was compared. Online learning in art appreciation is expected to enhance achievement of the students and to develop their interest and love for the subject. The dependent variable, which is the achievement in the subject, is the focus of the investigation, which is influence by the independent variable shown by the two approaches in teaching art appreciation. And produce a video clip was posted on Youtube. Finally, study a satisfaction from the audience. The findings are presented as follows:

- 4.1 Model of Online Learning and Modular Setting in Art Appreciation
- 4.2 Effectiveness for Online Learning in Art Appreciation
- 4.3 Analysis of Expert Results
- 4.4 Satisfaction Assessment Media Feedback from Students

4.1 Model of Online Learning and Modular Setting in Art Appreciation

The researcher created a model base on summaries model of online learning and modular setting in art appreciation. The Cagayan State University (CSU) has their learning management system-CSU LENS (Cagayan State University-Learning Environment Network System) and maximizes the Learning Management System (LMS) - Moodle. Teachers can upload learning materials (i.e. documents in word, pdf., image, video clip etc.) and students on the other hand can access LMS using their student username and password. Learning and teaching experience of students and teachers can be synchronous, where lecturers and learners are in real-time virtual class. Asynchronous mode on the other hand, where students can learn at their own pace. However, there are only few studies in the immediate transition of the Philippine education system in the comparison of online learning and modular setting during this pandemic. This led the researcher to study the learning achievement of online learning at Cagayan State University, Philippines. The researcher will conduct a pilot study between the online learning and modular setting with the following guided questions: What is the mean achievement of the respondents in the

pre-test? What is the mean achievement of the respondents in the post-test? Is there a significant difference in the mean achievement of the students being taught in Art Appreciation with the use of online learning in comparison to those students taught in the use of modular. Then it can summarize idea conceptual framework at the figure below.

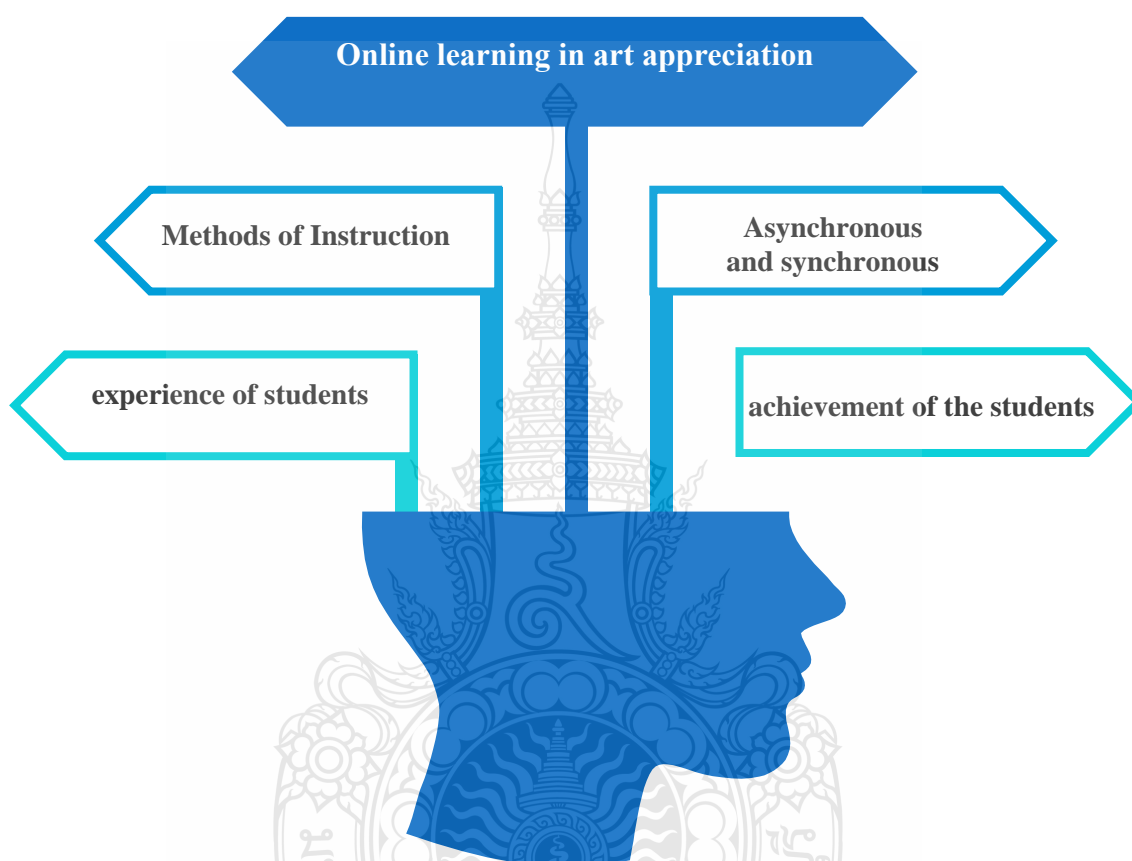


Figure 4.1 Model of online learning and modular setting in art appreciation

From figure 4.1 Online learning model in this study consist of methods of instruction, asynchronous and synchronous, experience of students, and finally achievement of the students. Instructional methods consist of principles and methods used by teachers to enhance and relate the training to learners. It is defined by the process that use to instruct people on a particular topic. Each instructional method has its use. Instructional methods are kinds of instructional ways or activities used to guide the facilitation of learning in each phase of the instructional process. There can be hundreds of variations in it. Do you know what the four types of instructional methods are? The four types are information processing, behavioral, social interaction, and personal. Within each model, several

strategies can be used. Strategies determine the approach a teacher may take to achieve learning objectives. The purpose of such methods is that it is an important aspect of teaching and learning to determine the activities of teachers and students. Appropriate instructional methods influence many motivational variables of learners such as a tendency to think critically. These methods can be used in a lesson plan in the following ways: lectures, cooperative learning, brainstorming, role-playing, videotapes, slides, direct teaching, and digital presentations. The four main instructional skills are critical thinking, creative thinking, communicating, and collaborating. These skills help students learn, and so they are vital to success in school and beyond. Critical thinking is focused, careful analysis of something to better understand. (teachmint, 2020)

4.2 Effectiveness for Online Learning in Art Appreciation

Compare the average score of the achievement tests before and after online learning and modular setting in art appreciation. By completing the tests, students were able to online learning and modular setting in art appreciation, and conduct Post-test which was consistent with objective 2, illustrating the results of analysis as shown in Table 4.1.

Table 4.1 Comparison of average score before and after learning and modular setting in art appreciation.

Items	n	\bar{X}	S.D.	t-test	Sig. (2-tailed)
Pre-test	30	18.60	4.74	11.97	.000
Post-test	30	25.83	3.10		

Table 4.1 Presented the efficiency of the development of online learning and modular setting in art appreciation. The mean score of pre-test was 18.60, and the score of standard deviation (S.D.) was 4.74. The result after applying the online learning and modular setting in art appreciation constituted a substantial improvement in students which translated into a high post-test 25.83 and standard deviation (S.D.) 3.10 and t-test analysis before and after the treatment 11.97 which demonstrated a considerable difference was statistically significant at the 0.05 level.

4.3 Analysis of Expert Results

Table 4.2 Results of evaluation of online learning and modular setting in art appreciation by three experts in educational curriculum

Evaluation Items	\bar{X}	S.D.	Result Interpretation
1. Standard and Indicators			
1.1 Conciseness	3.33	.57	Average
1.2 Wording	3.33	.57	Average
2. Lesson Objectives			
2.1 Congruent with the standards and indicators	4.00	1.00	Good
2.2 Wording	4.00	.00	Good
3. Contents			
3.1 Congruent with the lesson objectives	4.00	1.00	Good
3.2 Wording	3.00	.00	Average
3.3 Used prior knowledge	4.33	.57	Good
3.4 Organized content effectively	4.66	.57	Very good
4. Materials			
4.1 Congruent with the teaching-learning process	4.33	.57	Good
4.2 Adequate to support the lesson contents and objectives	4.00	.00	Good
5. Teaching Process			
5.1 Congruent with the contents, objectives of the lesson and procedure of the teaching method	3.33	.57	Average
5.2 Evaluation of students achievement, congruent with the teaching process, objectives of the lesson plan, and procedure of the teaching method	4.33	.57	Good
5.3 Wording	3.33	.57	Average
Total	3.84	.13	Good

Table 4.2 Presented the result of the online learning and modular setting in art appreciation evaluated by three experts in educational curriculum. The average mean score 3.84 indicated the considerable improvement on the online learning and modular setting in art appreciation to enhance effectiveness of undergraduate students.

4.4 Satisfaction Assessment Media Feedback from Students

4.4.1 Analyze the satisfaction score of undergraduate students who learn with online learning and modular setting in art appreciation

4.4.2 The number of the sample groups who completed the satisfaction questionnaire was shown in table 4.3.

Table 4.3 The number and percentage of the sample groups who answered the questionnaire

Sex	Number	Percentage
Male	10	33.3
Female	20	66.6
Total	30	100

Based on Table 4.3, the sample group who responded to the satisfaction questionnaire were mostly females, 20 people calculated at 66.6 percent. There were 10 males, calculated at 33.3 percent.

4.4.3 Evaluation of students' satisfaction questionnaire on online learning and modular setting in art appreciation.

Table 4.4 Result of evaluation of students' satisfaction with online learning and modular setting in art appreciation.

Evaluation Items	\bar{X}	S.D.	Result Interpretation
1. Contents			
1.1 The learning contents are suitable with the learning time defined.	4.43	.50	Agree
1.2 The learning topics and contents are interesting.	4.56	.50	Strongly Agree
1.3 The demonstrated contents cover the learning objectives of each chapter.	4.40	.49	Agree
1.4 The learning contents are appropriate for the students' grade level.	4.50	.50	Agree
1.5 The learning contents are clearly explained and enough for understanding.	4.46	.50	Agree
1.6 Question items in the unit exercises are relevant to the content.	4.46	.50	Agree
1.7 The contents of 3 chapters are appropriate for learning with online learning.	4.60	.49	Strongly Agree
1.8 The unit exercises are sufficient for checking understanding.	4.33	.54	Agree
1.9 The question items in the unit exercises are clearly stated and easy to understand.	4.63	.49	Strongly Agree
2. Screen Design			
2.1 Layout of each page is established appropriately for learning.	4.46	.50	Agree
2.2 Choices of typeface and size facilities ease of use.	4.63	.49	Strongly Agree
2.3 A loud and clear sound is provided.	4.63	.49	Strongly Agree
2.4 Interaction and timely feedback are provided appropriately.	4.50	.50	Agree
2.5 Choices of color is appropriate.	4.56	.50	Strongly Agree

Table 4.4 Result of evaluation of students' satisfaction with online learning and modular setting in art appreciation. (Cont.)

	Evaluation Items	\bar{X}	S.D.	Result Interpretation
2.5	Choices of color is appropriate.	4.56	.50	Strongly Agree
2.6	Screen design is attractive to students.	4.63	.49	Strongly Agree
2.7	Lesson navigation and buttons are appropriately established and relevant to these learning activities.	4.40	.49	Agree
3. Screen Usage				
3.1	The online learning instruction is easy to use.	4.80	.40	Strongly agree
3.2	The interactive function between users and instructional contents is effective.	4.20	.55	Agree
3.3	Learners can control and use this lesson on their own.	4.70	.46	Strongly agree
3.4	User's manual clearly describes how to use online learning instruction.	4.53	.57	Strongly Agree
3.5	This online lessons is fun and interesting.	4.50	.50	Agree
3.6	Specific time for learning with online lesson is appropriate.	4.40	.49	Agree
3.7	If it is possible, you would like to learn other subjects with online learning.	4.60	.49	Strongly agree
4. Evaluation				
4.1	Pre-test and post-test offer students the understanding on the contents appropriately.	4.73	.44	Strongly agree
4.2	The question items are clear.	4.56	.50	Strongly Agree
4.3	The tests are made with the objectives and media.	4.53	.57	Strongly Agree
4.4	The difficulty of the test is appropriate for students.	4.33	.54	Agree
4.5	The score between pre-test and post-test is clear.	4.66	.47	Strongly Agree
Total		4.22	.17	Agree

Based on Table 4.4, the mean score ranged between 4.20 and 4.80, which was between averages to high levels. The highest mean score (4.80) was the item “The online learning instruction is easy to use”. The lowest mean score (4.20) was the item “The interactive function between users and instructional contents is effective”. The average mean score overall of this dimension was 4.22, which showed that students had very good satisfaction with online learning and modular setting in art appreciation.

Table 4.5 Mean Achievement of the respondents in the pre test

Groups	Mean	Standard Deviation
Online	28.62	8.69
Modular	23.46	6.72

Table 4.5 shows the mean achievement of the respondents in the pre-test. The achievement of online group is higher than the modular group.

Table 4.6 Mean Achievement of the respondents in the post test

Groups	Mean	Standard Deviation
Online	41.69	4.82
Modular	34.85	6.19

Table 4.6 shows the mean achievement of the respondents in the post test. The mean achievement of the students enrolled in Art Appreciation in the online group obtained a higher mean score.

Table 4.7 Test of significant difference in the mean achievement of the students taught in Art Appreciation with the use of online teaching in comparison to those students taught with the use of modular in the Pre-test

Groups	Mean	Standard Deviation	p-value
Online	28.62	8.69	0.1037
Modular	23.46	6.72	
tc= 1.69	df= 24	$\alpha= 0.05$	Decision: Accept Ho

Table 4.7 shows the test of significant difference in the mean achievement of the students taught in Art Appreciation with the use of online teaching in comparison to those students taught with the use of modular in the Pre-test. The result of the performance of the respondents in the achievement pre-test which was given before the start of experimentation shows that the mean score of online group is higher than the mean score of modular. When scores were subjected to t-test, it shows no significant difference both online and modular. It is a good baseline before the start of experimentation.

Table 4.8 Test of significant difference in the mean achievement of the students taught in art appreciation with the use of online teaching in comparison to those students taught with the use of modular in the Post-test

Groups	Mean	Standard Deviation	p-value
Online	41.69	4.82	0.0044
Modular	34.85	6.19	

tc= 3.15 df= 24 $\alpha= 0.05$ Decision: Reject Ho

Table 4.8 shows the test of significant difference in the mean achievement of the students taught in Art Appreciation with the use of online teaching in comparison to those students taught with the use of modular in the Post-test. After the conduct of the study, the table further shows a significant difference in the mean achievement between online group and modular group. This is supported by the probability value of 0.0044 which is less than the alpha of 0.05. This imply further that online teaching is more effective than just mere printed materials/modules given to the students.

The distribution of respondents according to age, sex and IQ is shown in table 4.9, table 4.10 and table 4.11, respectively.

Table 4.9 Frequency and percentage distribution of respondents according to age

Age	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
21-22	5	33.3%	5	33.3%
19-20	5	33.3%	5	33.3%
17-18	5	33.3%	5	33.3%
Total	15	100%	15	100%

Table 4.10 Frequency and percentage distribution of respondents according to sex

Sex	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
Male	5	33.3%	5	33.3%
Female	10	66.6%	10	66.6%
Total	15	100%	15	100%

Table 4.11 Frequency and percentage distribution of respondents according to IQ

IQ	Experimental group		Control group	
	Frequency	Percentage	Frequency	Percentage
AA	5	33.3%	5	33.3%
A	10	66.6%	10	66.6%
Total	15	100%	15	100%

This study utilized two measuring instruments in gathering pertinent data for the study. These are art appreciation achievement test and Lennon mental ability test.

Due to the scarcity of standardized test in art appreciation, the researcher constructed an achievement test based on the topics for the midterms. Originally, the test consisted of sixty items multiple choice type. The items for the achievement test were submitted for validation in the college for comments and suggestions. Every item in the

test was analyzed and items that were below 25% difficult and above 75% easy were deleted. After revision was made from the results of the item analysis, the achievement test was finally reduced to fifty items. To ensure accuracy and validity of the achievement test that will be used, the researcher pretested it with the first year BSHM students of Cagayan State University. Table 1-d shows the table of specification of the art appreciation achievement test.

Table 4.12 The table of application of the topics

TOPICS	Knowledge	Comprehension	Application	Total
1. Visual artworks and artist				
1.1 Types of visual arts	1	5	1	7
1.2 Notable visual artist	1	5	1	7
1.3 Visual art works	1	5	1	7
1.4 Local visual artists	1	5	1	7
1.5 Medium of visual arts	1	4	1	6
2. Understanding the subjects of visual arts and Its elements and principles				
2.1 Identifying theme, mood, tone and composition	1	5	2	8
2.2 Elements and principles of visual arts	1	5	2	8
Total	7	34	13	50

CHAPTER 5

CONCLUSION AND RECOMMENDATION

In a study of learning achievement of online learning at Cagayan State University, Philippines. There are three major objectives The study will assess the effectiveness of online learning in art appreciation to the freshmen hospitality management students in comparison to modular. 1) To create a model of online learning in art appreciation to the freshmen hospitality management students in comparison to modular. 2) To study the effectiveness of a ydo-clip for online learning in art appreciation to the freshmen hospitality management students in comparison to modular. And 3) Find students' satisfaction in learning online learning in art appreciation to the freshmen hospitality management students in comparison to modular. The collected quantitative data will be analyzed using, descriptive statistics, Chi-square test of association, and independent t-test. The data analysis of the mean and standard deviation (S.D.) The second step is to create a model base on summaries idea and instructional strategies. And produce a video clip to be posted on Youtube. Finally study satisfaction assessment media feedback from students. The summary of the research are as follows:

- 5.1 Discussion
- 5.2 Conclusion
- 5.3 Recommendation
- 5.4 Suggestion

5.1 Discussion

The discussion of the study of learning achievement of online learning at Cagayan State University, Philippines, learner's consumption and parental mediation strategies are as follows:

5.1.1 Model of online learning and modular setting in art appreciation in this study consist of methods of instruction, asynchronous and synchronous, experience of students, and finally achievement of the students. Instructional methods consist of principles and methods used by teachers to enhance and relate the training to learners. It is defined by the process that you use to instruct people on a particular topic. Each

instructional method has its use. Instructional methods are kinds of instructional ways or activities used to guide the facilitation of learning in each phase of the instructional process. There can be hundreds of variations in it. Do you know what the four types of instructional methods are? The four types are information processing, behavioral, social interaction, and personal. Within each model, several strategies can be used. Strategies determine the approach a teacher may take to achieve learning objectives. The purpose of such methods is that it is an important aspect of teaching and learning to determine the activities of teachers and students. Appropriate instructional methods influence many motivational variables of learners such as a tendency to think critically. These methods can be used in a lesson plan in the following ways: lectures, cooperative learning, brainstorming, role-playing, videotapes, slides, direct teaching, and digital presentations. The four main instructional skills are critical thinking, creative thinking, communicating, and collaborating. These skills help students learn, and so they are vital to success in school and beyond. Critical thinking is focused, careful analysis of something to better understand. (teachmint, 2020) relate with the study of (Javier, C. L., 2020) aimed to determine the attitude of the respondents toward online teaching and identify teachers' technological competence. In addition, the study also intended to determine whether a relationship exists between the main variables, and whether a gender gap could be found with respect to attitude toward online teaching and teachers' technological competence. Her study disclosed that the respondents' attitude is characterized to be 'somehow negative' and they claimed to be technologically 'competent'. The existence of gender gap with respect to attitude and competence; however, a significant positive and linear 211 relationship was drawn between the variables attitude and competence ($p\text{-value} = 0.000$, $r\text{-value} = 0.586$).

5.1.2 Effectiveness for online learning in art appreciation compare the average score of the achievement tests before and after online learning and modular setting in art appreciation. By completing the tests, students were able to online learning and modular setting in art appreciation, and conduct Post-test which was consistent with objective. Comparison of average score before and after online learning and modular setting in art appreciation Table 3. presented the efficiency of the development of online learning and modular setting in art appreciation. The mean score of pre-test was 18.60, and the score

of standard deviation (S.D.) was 4.74. The result after applying the online learning and modular setting in art appreciation constituted a substantial improvement in students which translated into a high post-test 25.83 and standard deviation (S.D.) 3.10 and t-test analysis before and after the treatment 11.97 which demonstrated a considerable difference was statistically significant at the 0.05 level. Relate with a research from As Rana (2012) points out, positive attitude is an important indicator of willingness and initial step in effective integration. Teachers are the key players in schools. They are catalysts who play significant roles in technology in the school and classrooms. It is therefore necessary for teachers to develop positive attitudes towards online teaching since it has been found to be linked to usage and intention to use. As Gibson et al. (2014) opined, teachers are the key stakeholders of education and their attitude on adoption of e-learning (i.e., virtual/online teaching) has also significant impact on students' attitude formation towards it. Also relate with the study of Dela Rama, J. M., et.al, (2020) enlisted a total of 256 purposively selected teachers assigned to teach Science subjects. Their investigation intended to determine whether there is a gender divide among variables of the study, and that whether a significant relationship exist among the respondents' attitude toward online teaching, technological competence, and access.

5.1.3 Satisfaction assessment media feedback from students who learn with online learning and modular setting in art appreciation. The number and percentage of the sample groups who answered the questionnaire. Based on Table 3, the sample group who responded to the satisfaction questionnaire were mostly females, 20 people calculated at 66.6 percent. There were 10 males, calculated at 33.3 percent. Evaluation of students' satisfaction questionnaire on online learning and modular setting in art appreciation. Also table 4.4 show result of evaluation of students' satisfaction with online learning and modular setting in art appreciation. Based on Table 4.4, the mean score ranged between 4.20 and 4.80, which was between averages to high levels. The highest mean score (4.80) was the item "The online learning instruction is easy to use." The lowest mean score (4.20) was the item "The interactive function between users and instructional contents is effective". The average mean score overall of this dimension was 4.22, which showed that students had very good satisfaction with online learning and modular setting in art appreciation. Relate with Thompson, L. (2005) his qualitative study was conducted to

explore seven Chinese graduate students' experiences of and attitudes to taking online courses in the USA. All seven participants indicated that online learning was an interesting experience for them, however, they had mixed attitudes toward this unfamiliar mode of learning. The participants pointed out that easy resource sharing, easy record keeping and convenience of the discussion board were features of online learning that they liked the most. On the other hand, their writing skills in English, insufficient and deferred feedback and the lack of cultural exchange were their major concerns regarding online learning. Recommendations were provided for Chinese students on how to prepare for and how to succeed in online courses. Online instructors were also given recommendations regarding how to integrate teaching strategies to promote diversity and cultural understanding.

5.2 Conclusion

The result on ten satisfaction assessment media feedback from the students shows a very good satisfaction with online learning. Furthermore, the t-test also shows the test of significant difference in the mean achievement of the students taught in Art Appreciation with the use of online teaching in comparison to those students taught with the use of modular in the Post-test. After the conduct of the study, the result further shows a significant difference in the mean achievement between online group and modular group. This is supported by the probability value of 0.0044 which is less than the alpha of 0.05. This imply further that online teaching is more effective than just mere printed materials/modules given to the students.

The study concluded that online learning is more effective strategy or approach in teaching-learning process than asynchronous or modular method of teaching based on the finding of the study conducted.

5.3 Recommendation

In this research, researcher have suggested that the results of the study should be applied as follows:

5.3.1 The development of a model online learning and modular setting in art appreciation should be conducted step-by-step based on best practice in this field, since

it would enable the researcher to achieve the objectives of constructing media instruction lessons which result in higher efficiency and a more successful implementation.

5.3.2 Learners which has been studied in several aspects of research and found to be successfully taught using the online learning and modular setting in art appreciation so that the technique shall be further studied for the learning and teaching other subjects.

5.3.3 Regarding students' different learning styles, they should be offered the opportunity to decide whether they wish to work on their own or in small groups when utilizing the online learning and modular setting in art appreciation. This would prosper cooperative learning skills and peer correction.

5.4 Suggestion for Further Study

Based on the summary and discussion of the study, the researcher has several suggestions for further study as follows:

5.4.1 Technique of online learning and modular setting in art appreciation including animation sound should be added to develop the motion graphic in order to make it more interesting and attractive to students.

5.4.2 Other instructional strategies in which students are interested should be developed through the use of online learning several format.

5.4.3 Should be created as the channels of social media to add more channel of communication between students and teachers.

5.4.4 There should a further study on applying the online learning using other teaching methodologies such blended learning, and self-directed learning.

5.4.5 Should be sending a prototype share to ASEAN country. To utilize this model for their student in many universities.

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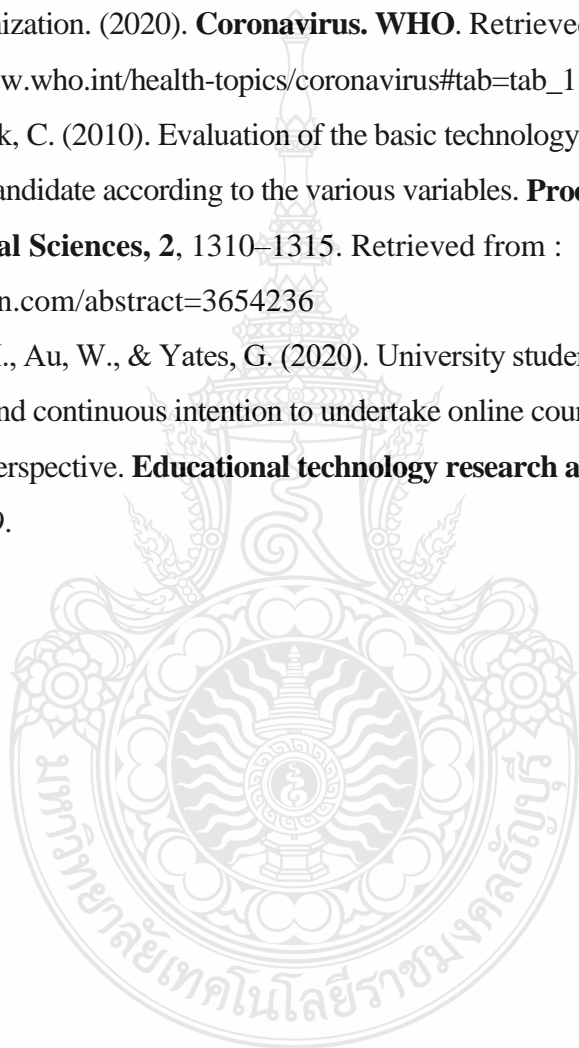
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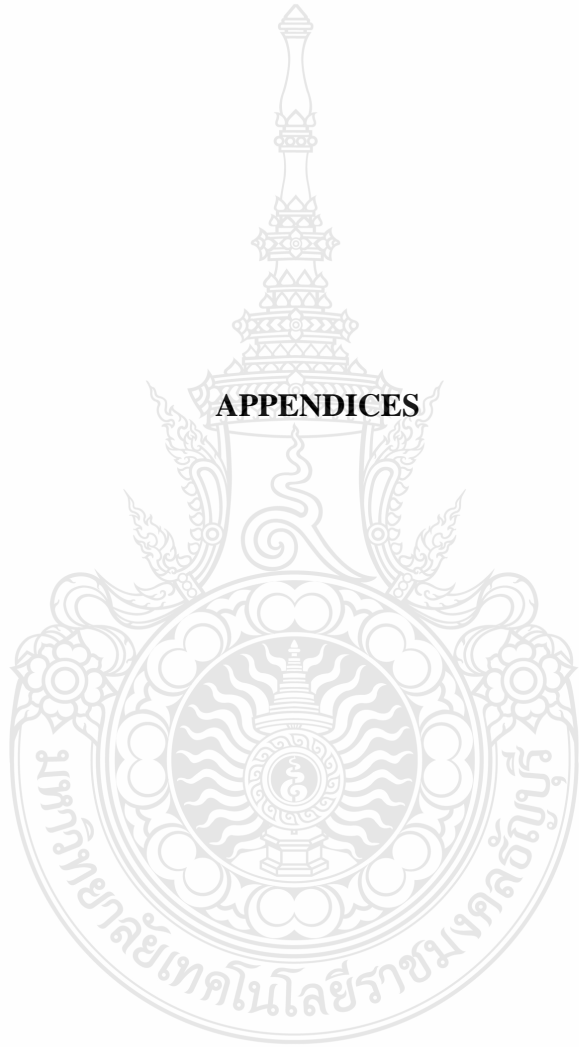
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APPENDICES





APPENDIX A

- **List of experts who reviewed research instruments**
- **Invitation letter to experts to examine research instruments**

List of experts who reviewed research instruments

Content Experts

1. Associate Professor: Ms Fu Hongxia
College of teacher education, Tian Shui Normal University in GanSu province
2. Lecturer: Ms. Wang Jiaxiang
Department of English, Beijing Foreign Studies University
3. Associate Professor: Ms Long Hongzhi
Education Department, Xi Bei Normal University in GanSu province

Media Experts

1. Associate Professor Dr. Jia Dongyao
Big Data and Intelligent Measurement and control,
Professor and doctoral supervisor of Beijing JiaoTong University
2. Asst. Prof. Dr. Sawanan Dangprasert
Faculty of Technical Education, King Mongkut's University of Technology
North Bangkok
3. Dr. Kittisak Paen-Ngam
Nakhonnayok Primary Educational Service Area Office
University Vice Chancellor

Measurement and Evaluation Experts

1. Asst. Prof. Dr. Danucha Saleewong
Faculty of Education, Valaya Alongkorn Rajabhat University
2. Asst. Prof. Dr. Haripon Thammanarak
Faculty of Education, Chiang Mai University
4. Asst. Prof. Dr. Tanin Kongsila
Department of Agricultural Extension and Communication,
Faculty of Agriculture, Kasetsart University

MHESI 0637/2022



Office of the Dean, Faculty of Technical Education
Rajamangala University of Technology Thanyaburi
Khlong Luang, Pathum Thani 12110 Thailand
Tel:+66-2-549-4710 Fax:+66-2-577-5049

20 June, 2022

Dear Associate Professor: Ms Fu Hongxia
College of teacher education, Tian Shui Normal University in GanSu province

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled "The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China". under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

If you have any questions or need further information, please feel free to contact Ms. Meng Yanling, on the e-mail: meng_y@mail.rmutt.ac.th.

Yours sincerely,

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education

MHESI 0637.1 /2022



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Khlong Luang, Pathum Thani 12110 Thailand
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20 June, 2022

Dear Lecturer: Ms. Wang Jiaxiang
Department of English, Beijing Foreign Studies University

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled “The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China”. under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

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Yours sincerely,

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education



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Khlong Luang, Pathum Thani 12110 Thailand
Tel:+66-2-549-4710 Fax:+66-2-577-5049

20 June, 2022

Dear Associate Professor: Ms Long Hongzhi
Education Department, Xi Bei Normal University in GanSu province

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled “The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China”. under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

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Dean of Faculty of Technical Education

MHESI 0637.3 / 2022



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20 June, 2022

Dear Associate Professor Dr. Jia Dongyao
Big Data and Intelligent Measurement and control,
Professor and doctoral supervisor of Beijing JiaoTong University

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If you have any questions or need further information, please feel free to contact Ms. Meng Yanling, on the e-mail: meng_y@mail.rmutt.ac.th.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Arnon Niyomphol'.

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education

MHESI 0637.4 / 2022



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Khlung Luang, Pathum Thani 12110 Thailand
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20 June, 2022

Dear Asst.Prof.Dr. Sawanan Dangprasert
Faculty of Technical Education, King Mongkut's University of Technology North Bangkok

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled "The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China". under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

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Yours sincerely,

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education

MHESI 0637.5 / 2022



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Khlung Luang, Pathum Thani 12110 Thailand
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20 June, 2022

Dear Dr. Kittisak Paen-Ngam
Nakhomayok Primary Educational Service Area Office University Vice Chancellor

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled “The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China”. under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

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Yours sincerely,

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(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education

MHESI 0637.6 / 2022



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Khlong Luang, Pathum Thani 12110 Thailand
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20 June, 2022

Dear Asst.Prof.Dr. Danucha Saleewong
Faculty of Education, Valaya Alongkorn Rajabhat University

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled “The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China”. under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

If you have any questions or need further information, please feel free to contact Ms. Meng Yanling, on the e-mail: meng_y@mail.rmutt.ac.th.

Yours sincerely,

(Assistant Professor Arnon Niyomphol)
Dean of Faculty of Technical Education



MHESI 0637.7 / 2022

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20 June, 2022

Dear Asst.Prof.Dr. Haripon Thammanarak
Faculty of Education, Chiang Mai University

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Meng Yanling, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled “The Effect of Using Artificial Intelligence Application for Individual Difference in English to Enhance Learning Achievement of Secondary Students, China”. under the supervision of Asst. Prof. Dr. Thidarat Kulnattarawong. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

If you have any questions or need further information, please feel free to contact Ms. Meng Yanling, on the e-mail: meng_y@mail.rmutt.ac.th.

Yours sincerely,

(Assistant Professor Aron Niyomphol)
Dean of Faculty of Technical Education



MHESI 0637.8 / 2022

Office of the Dean, Faculty of Technical Education
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Khlong Luang, Pathum Thani 12110 Thailand
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20 June, 2022

Dear Asst.Prof.Dr. Tanin Kongsila
Department of Agricultural Extension and Communication, Faculty of Agriculture,
Kasetsart University

Subject: Respectfully Requesting for letter of Invitation of Experts for M.Ed.Thesis

I am writing to request your assistance as an honorary external research reviewer in evaluating the research instruments of Ms. Lijie Wu, Master of Education Program in Technology and Learning Innovation Rajamangala University of Technology Thanyaburi, who has been working on the thesis titled "Multimedia Application for Improving Chinese Language Skills for International Students", under the supervision of Asst. Prof. Dr. Piyanan Pannim Vipahasna. In this regard, I would like to request your valuable time to evaluate the research instruments as I strongly believe that your expertise will be of great value in improving the research instruments.

If you have any questions or need further information, please feel free to contact Ms.Lijie Wu, on the e-mail: chinese_wu@foxmail.com.

Yours sincerely,

(Assistant Professor Amon Niyomphol)
Dean of Faculty of Technical Education



Appendix B

The example of online learning in art appreciation

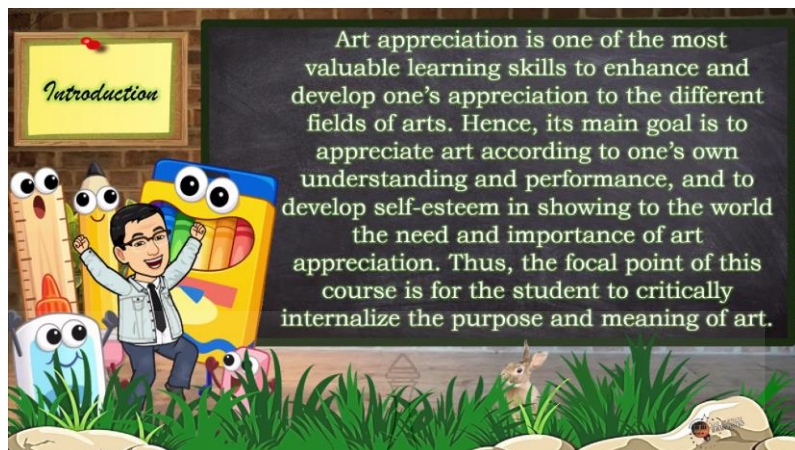


Figure appB.1 introduce to the basic of art appreciation



Figure appB.2 relate the scene of mention art is a way of life



Figure appB.3 the story mention about question What is art appreciation?

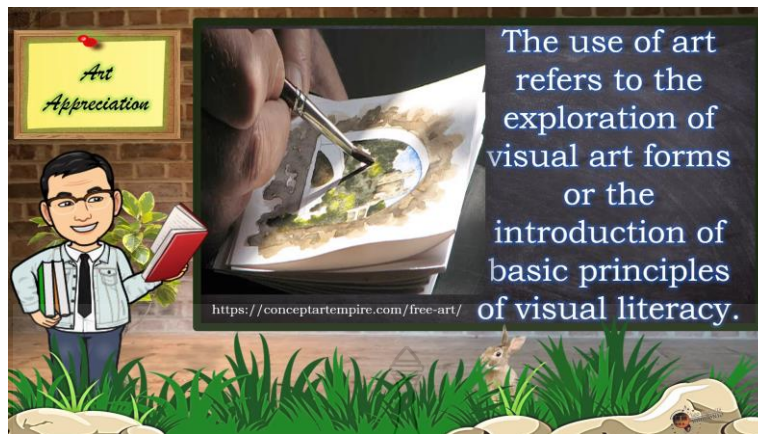


Figure appB.4 looking for exploration of visual art forms

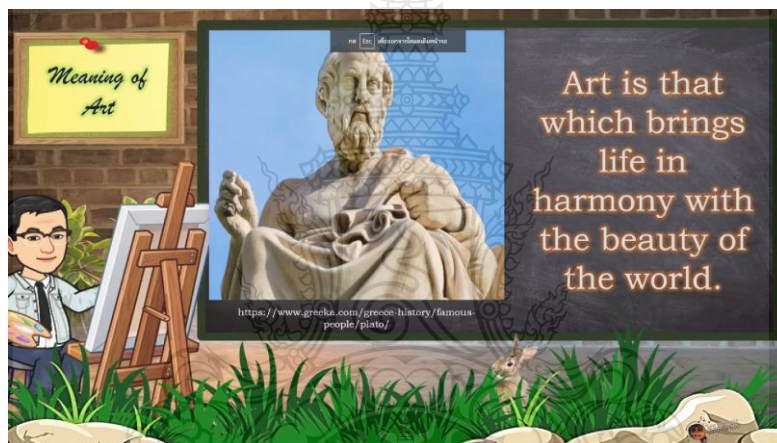


Figure appB.5 mention relate to bring life in harmony



Figure appB.6 summarize an influence of art appreciation



APPENDIX C

- Questionnaire for Survey

- Achievement test in Art Appreciation

Conformity Evaluation Form

This statement is intended to assess the consistency of the assessment report with the objectives of the assessment by having experts consider the conformity to be appropriate.

Please mark ✓ in the consistency value field with the following consistency value levels:

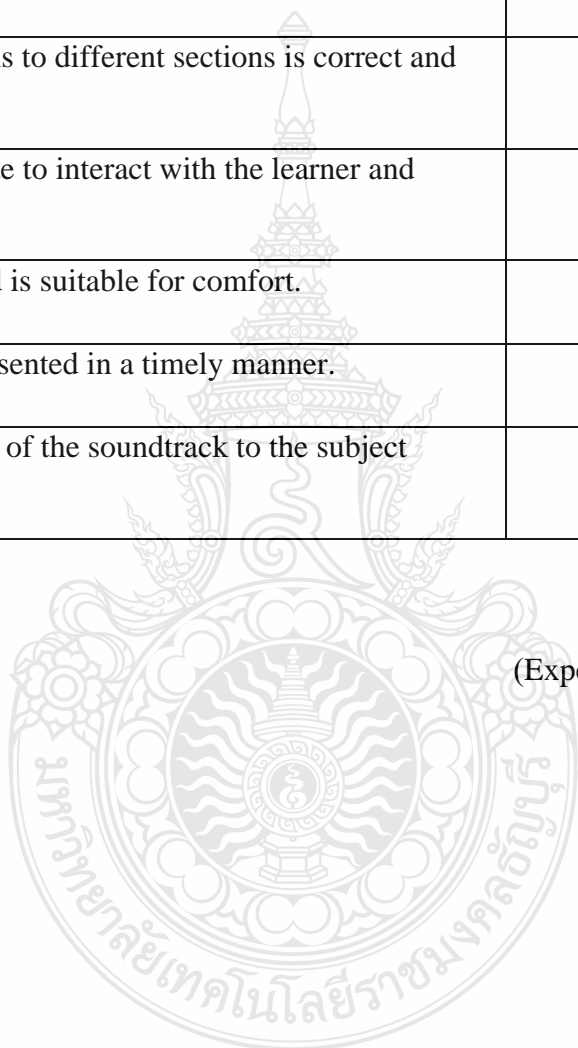
- +1 means The estimate line is consistent with the estimated objective.
- 0 means Not sure if the estimate list is consistent with the estimated objective.
- 1 means The estimate line does not correspond to the estimated objective.

Estimate lines	Consistency level			suggestion
	+1	0	-1	
1. The content of the lesson corresponds to the purpose of learning.				
2. The content is clearly accurate according to the subject matter.				
3. Proper use of language. It is clearly descriptive.				
4. The content structure is comprehensive and the original knowledge is linked to new knowledge.				
5. Difficulty sequencing is appropriate.				
6. Flexible lesson design meets differences between individuals.				
7. Font size, font color, easy to read, and floor color are appropriate.				
8. Slides, animations, and videos are clear, consistent with the content.				

Estimate lines	Consistency level			suggestion
	+1	0	-1	
9. The voice tone is appropriate.				
10. The lesson controls are easy to use and clearly descriptive.				
11. Linking lessons to different sections is correct and appropriate.				
12. It is appropriate to interact with the learner and the lesson.				
13. The color used is suitable for comfort.				
14. The media presented in a timely manner.				
15. The suitability of the soundtrack to the subject fits well.				

(Expert Name and signature)

Date: date/month/year



Achievement test in Art Appreciation

1. Which category of visual art that was developed primarily for aesthetics or beauty and intellectual purposes and judged for its beauty and meaningfulness, emphasizing painting, sculpture, drawing, watercolor, graphics, and architecture.
 - a. Contemporary visual arts
 - b. Fine arts**
 - c. Decorative arts

2. This form of visual art are produced in a globally influenced, culturally diverse, and technologically advancing world.
 - a. Fine arts
 - b. Decorative arts
 - c. Contemporary arts**

3. It is an art form that applies design to everyday objects in order to make them aesthetically pleasing, it is more utilitarian and has a function but retains an artistic style and still requires talent to create.
 - a. Fine arts
 - b. Decorative arts**
 - c. Contemporary arts

4. These are the materials, which are used by an artist to interpret his feelings or thoughts. It denotes the ways or methods by which an artist communicates his idea.
 - a. Materials
 - b. Medium**
 - c. Media

5. This is a painting technique done on a wet plastered wall. Glowing is the primary characteristic of this kind of painting.
 - a. Watercolor
 - b. Fresco**
 - c. Tempera

6. A principle of design applied to create the look and feel of action and to guide the viewer's eye throughout the work of art.
- a. Movement
 - b. Variety
 - c. Balance
7. A principle of visual art that deals with a way of combining similar elements in artwork to accent their similarities (achieved through the use of repetition and subtle, gradual changes).
- a. Balance
 - b. Rhythm
 - c. Harmony
8. An element of art that is three-dimensional and encloses volume; includes height, width, and depth.
- a. Form
 - b. Space
 - c. Color
9. It is the degree of brightness and purity of a color.
- a. Hue
 - b. Texture
 - c. Intensity
10. An artistic genre that involves the configuration or installation of objects in a space, such as a room or warehouse.
- a. Installation art
 - b. Visual art
 - c. Decorative art

11. It is the process of making a film, generally in the sense of films intended for extensive theatrical exhibition.
- Movie clip
 - Movie production
 - Movie marathon
12. It is a principle of design that refers to the relationship of individual elements to the whole and each other.
- Emphasis
 - Movement
 - Proportion
13. It is an element of art illustrated by a point moving in space. It may be two- or three-dimensional, descriptive, implied, or abstract.
- Line
 - Form
 - Shape
14. It is an element of art composed of three characteristics: hue, value, and intensity. It can be primary, secondary, mixed, complimentary, monochromatic, decorative, warm, cool, dark, etc.
- Harmony
 - Color
 - Water color
15. It is a way of blending elements to add a feeling of equilibrium or stability to a work of art. Major types are symmetrical and asymmetrical.
- Balance
 - Variety
 - Proportion

16. It is an element of art that is two-dimensional, flat, or restrained to height and width.
- a. Shape
 - b. Space
 - c. Form
17. It is considered as the exactly the same as the layout of a piece of artwork. It is not the actual subject of the art but where the subject is placed.
- a. Appearance
 - b. Composition
 - c. Medium
18. It relates to the meaning of a painting. Deeper and broader and conveys something more universal.
- a. Mood
 - b. Theme
 - c. Tone
19. What do you call a technique in which images are manipulated to appear as moving forms?
- a. Design
 - b. Creativity
 - c. Animation
20. It is a method that includes lights, water, fire, fog, and lasers, with high-definition projections on mist screens.
- a. Technique
 - b. Hydroanimation
 - c. Hydrotechnics

21. It is the art and business of designing a structure and overseeing its construction.
- a. Designing
 - b. Architecture**
 - c. Construction
22. This is one of the favorite materials used by sculptors because of its ductility, conductivity and luster, an examples are copper, brass, bronze etc.
- a. Jewelry
 - b. Metals**
 - c. Stones
23. It is a kind of visual arts that operates in three dimensions. The three (3) classifications are freestanding, relief, and environmental.
- A. Decorative art
 - B. Sculpture**
 - C. Clay and plaster
24. It is the art, utilization, and practice of creating long-lasting images by recording light or other electromagnetic radiation, either electronically utilizing an image sensor, or chemically using a light-sensitive material such as photographic film.
- A. Filming
 - B. Movie production
 - C. Photography**
25. This is made by using a waxy crayon or pencil to draw an image on a plate fixated by an acid solution, and ink is later applied to the plate, which is then transferred to a surface like white paper through pressing the plate onto it.
- a. Painting
 - b. Calligraphy
 - c. Lithography**

26. It is done by creating an artist's plate, which can either be original artwork or from an image which can later on transferred to a white paper using black ink.
- a. **Printmaking**
 - b. Printing
 - c. Designing
27. It is executed with the use of black and other colored inks like india ink, chinese ink, liners, markers, and regular ballpoint pen are some of the favorite samples used by comic strip illustrators and cartoonists.
- a. Charcoal painting
 - b. **Pen and ink**
 - c. Inking
28. These are colored sticks made from paraffin wax mixed with pigments. It is trendy among children. The ideal surface for crayons is paper.
- a. Oil pastel
 - b. **Crayons**
 - c. Color pencil
29. It is done on a light colored surface like paper, wood, canvas using pencil, pen and ink, or charcoal and usually done as training for artists.
- a. Drafting
 - b. **Drawing**
 - c. Coloring
30. It is a piece of textile fabric with images or designs formed by weaving colored threads or by embroidering on canvas.
- a. Silk
 - b. Cotton
 - c. **Tapestry**

31. It is an artwork made by conjoining small pieces of precut stained glass that is clasped by strips of lead usually reinforced with iron bars that form heavy black lines.
- a. Stained glass
 - b. Printed glass
 - c. Decorative glass
32. It is the art of arranging small pieces of colored stones or glass in almost the same shape and size to create an image.
- a. Draft mosaic
 - b. Mosaic
 - c. Mossaic
33. It is a synthetic paint mixed with acrylic emulsion binder for the surface overlaying of the artwork. It has the quick drying characteristic as the watercolor and the flexibility of oil thus making it one of the favorites of artists.
- a. Acrylic
 - b. Water based paint
 - c. Emulsifier
34. It is a drawing material made of carbon in different forms like stick, compressed, powder, and vine. It is used in representing broad masses of light and shadow by blending, smearing, or smudging over paper or other light colored surfaces.
- a. Pencil drawing
 - b. Charcoal
 - c. Ink

35. It is one of the most radical contemporary art movements; (also called "street art," "spraycan art," "subway art" or "aerosol art") commonly refers to beautiful imagery applied by paint or other means to buildings, public transport or other property.
- Graffiti art design
 - Graffiti**
 - Graffiti design
36. a semi-precious green or whitish stone, which is highly esteemed and widely used in china as an ornamental stone for carving and jewelry.
- Ruby
 - Jade**
 - Ivory
37. It is a mixture of lime, water, and sand, gypsum or cement. It is used extensively in making mannequins, models, molds, architectural decorations, and other indoor sculpture.
- Plaster
 - Metalic plate
 - Platelet
38. It is the sculpture medium most comfortable to carve than any other medium.
- Clay
 - Wooden**
 - Glass
39. The principles of visual arts include:
- Mood, tone, and composition
 - Space, color, and texture
 - Emphasis, variety, and movement**

40. It is the atmosphere in a painting, or the feeling expressed.
- Theme
 - Tone
 - Mood**
41. This refers to lightness or darkness of colors used, which can help to create a sense of depth or distance in art.
- Mood
 - Theme
 - Tone**
42. It is a principle of design concerned with diversity or contrast. It is achieved by using different shapes, sizes, or colors in a work of art.
- Biodiversity
 - Variety**
 - Difference
43. It is a way of mixing elements to stress the differences between those elements.
- Emphasis**
 - Mixture
 - Variety
44. Visual arts are those art forms appreciated or perceived primarily by sight, which occupy space that is either?
- One-dimensional or two-dimensional
 - Two-dimensional or three-dimensional**
 - Three-dimensional or one-dimensional
45. The categories of visual arts are?
- Fine arts, medium arts and decorative arts
 - Fine arts, contemporary arts and decorative arts**
 - Decorative arts, contemporary arts and ceramic arts

46. Which of the following are examples of fine arts?

- a. Drawing and graphics
- b. Mosaic and sculpture
- c. Animation and crafts

47. Which of the following are example of decorative arts?

- a. Art print and textile arts
- b. Ceramic and glass art
- c. Painting and jewelry

48. Which of the following are examples of contemporary arts?

- a. Watercolor and video art
- b. Installation art and photography
- c. Architecture and animation

49. The elements of visual arts includes:

- a. Line, shape, form
- b. Harmony, rhythm, balance
- c. Theme, mood, tone,

50. It is a method of painting that employs an emulsion of water, egg yolk or whole eggs sometimes with a little glue, honey or milk).

- a. Tempera
- b. Pastel
- c. Encaustic

Biography

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