Global Scientific JOURNALS
GSJ: Volume 11, Issue 6, June 2023, Online: ISSN 2320-9186
www.globalscientificjournal.com

# DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN

A Thesis

Presented to the Faculty of the Education Program

Kolehiyo Ng Pantukan, Pantukan

Davao de Oro



In Partial Fulfillment of the Requirement for the Degree

Bachelor of Technology Livelihood Education

major in Home Economics

REALYN A. MELENDRES

WILMA MILAGROSA

LYNARD BOBBY L. ASIRIT

SANNY M. DARAMAN

Authors

March 2023

Kolehiyo ng Pantukan
Juan A. Sarenas Campus, Kingking, Pantukan, Davao de Oro

## Disclaimer

This Quantitative Research is an official document of the College of Teacher Education of the Kolehiyo ng Pantukan.

Quotations from contractions and reproductions of all or any of this document are not authorized without specific written permission from the Dean of the College of Teacher Education of the Kolehiyo ng Pantukan.

The opinions, ideas, and proposals expressed herein are those of the student author/s and do not necessarily express the official views of the College of Teacher Education of the Kolehiyo ng Pantukan, or any other government agencies.

Reference to this work includes the foregoing statement.

KOLEHIYO NG PANTUKAN
College of Teacher Education
Juan A. Sarenas Campus
Kingking, Pantukan

Kolehiyo ng Pantukan
Juan A. Sarenas Campus, Kingking, Pantukan, Davao de Oro

## APPROVAL SHEET

This Quantitative Research titled **"DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN"** is submitted by **REALYN A. MELENDRES and WILMA MILAGROSA** in partial fulfillment of the requirements for the degree, **Bachelor of Technology and Livelihood Education major in Home Economics**, which is hereby **approved** and **accepted.**

**SANNY M. DARAMAN, LPT, MAHEED**
**Adviser**

---

**Panel of Examiners**

**APPROVED** by the Panel of Examiners with a grade of_____.



**DR. LYNARD BOBBY L. ASIRIT, LPT, PDSM, CESE**
**Chairperson, Advisory Committee**

**DR. CELEDONIA C. COQUILLA, LPT**
**Panel Member**

**DR. EUFROSINA P. MINES, CHE, LPT FRIEDR**
**Panel Member**

---

**ACCEPTED** in partial fulfillment of the requirements for the degree, Bachelor of Technology and Livelihood Education major in Home Economics.

**DR. JANDY T. BONGCAYAT, LPT, CHRA, FRIEdr**
**College President**

## ABSTRACT

The concept of digital literacy is the capability of the person to know, criticize, and utilize the various information sources that we can access through digital tools, devices, and resources. On the other hand, online learning attitudes describe any form of pedagogy delivered using digital technology. This study was anchored in UNESCO's Digital Literacy Framework (2018). Moreover, the Commission on Higher Education (CHED) adopted and implemented Commission en Banc, Resolution No. 412-2020, series of 2020, regarding the Guidelines on the Implementation of Flexible Learning that were also utilized for the dependent variables. This study was conducted to determine the significance between digital literacy and online learning attitudes of BTLED students in Kolehiyo ng Pantukan. This study used the quantitative research method specifically descriptive correlational design with an adaptive questionnaire as a data gathering instrument. A total enumeration were used and the respondents of this study are the two hundred forty-nine (249) Bachelor of Technology and Livelihood Education students. The results revealed that the level of digital literacy of BTLED students is quite confident which means it is evident in most occasions. Meanwhile, the level of online learning attitudes is often indicating that it is evident in most occasions. The study showed that there is a high positive correlation between the independent and dependent variables. This highlighted that digital literacy and online learning attitudes might become the focus area of digital practices. Therefore, there is a significant relationship between the level of digital literacy and online learning attitudes of BTLED students in Kolehiyo ng Pantukan.

***Keywords:*** *Digital Literacy, Online learning attitudes, method, population, Philippines*

## DEDICATION

This study is full of perseverance work and strenuous sacrifices. Through the researchers' effort, this study is heartily and genuinely dedicated to the people who become the researchers' inspiration and motivation. To the students who have difficulties on this modular distance learning, we are extremely grateful and honored if this study will help and guide you towards the betterment of your advisory.

To the future participants and beneficiaries of our study, the researchers are looking forward to helping and guiding you in the improvement of your performance in this modular distance learning.

To our mentor, friends, and classmates who shared their words of advice and encouragement to finish this study.

Lastly, we dedicated this study to the Almighty God, for the guidance, strength, power of mind, protection and skills and for giving us a healthy life to accomplish this study.

## ACKNOWLEDGEMENT

First and foremost, praise and thank God, the Almighty, for His showers of blessings throughout our research work to complete the research successfully. We would like to express our deep and sincere gratitude.

To Dr. Lynard Bobby Asirit for giving us the opportunity to do this research for his advice, support, patience and providing valuable guidance throughout this research.

For Dr. Jocelyn H. Hua, DFRIEDr. Her dynamism, expertise, sincerity and motivation have deeply inspired us and molded us into what we are now. It was a great privilege and honor to work and study under her supervision.

We are extremely grateful to our adviser, Sir Sanny Daraman for what he has offered us to make this research possible. His guidance helped us throughout our research.

To the thesis review panel for sharing their expertise, suggestions, and modifications for the improvement of this research;

Our thanks and appreciations to our respondents for answering whole heartedly our survey questionnaire;

To our family, we thank you for the unwavering support, love, and comfort all throughout in the moral and financial aspects. They have served as their greatest source of encouragement and inspiration to keep going;

Finally, to everyone the proponents are grateful for this wonderful accomplishment.

**The Researchers**

# TABLE OF CONTENTS

# LIST OF TABLES

## LIST OF FIGURES

# CHAPTER 1

# THE PROBLEM AND ITS SETTING

## Background of The Study

The innovation of the computer has greatly impacted social advancement and is now required in today's culture. Instruction is affected correspondingly by the alteration of the surroundings and propels beside events happening in interior human society. Everything was caught ill-equipped due to the episode of the Covid-19 far reaching. It features a profound impact on various points of life, like work, ordinary basic works out of ordinary life, and the well-being of individuals.

Most nations have incidentally closed their instructive education which has influenced more than 1.2 billion learners around the world (UNESCO, 2020). With the selection of online-based learning, most understudies get effortlessly bored and appear disappointment due to a few components such as natural impact (Wijaya, Zhou, Parnama & Hermita, 2020) need of steady web network (Chua, Sibbaluca, Miranda, Palmario, Moreno & Solon, 2020) and monetary emergency and mental weight (Ramij & Sultana, 2020). Understudies from nations like Indonesia (Wijaya et al., 2020), India (Gaur, Mudgal, Kaur & Sharma, 2020), and Pakistan (Adnan & Anwar 2020) experienced comparable issues in managing online learning up-to-date. Consequently, Basilaia & Kvavadze (2020) proposed that the nature of online learning in thought of students' demeanors ought to be investigated in the future.

Within the Philippines, the closure of schools has influenced more than 28 million learners as uncovered by UNESCO (2020). With the expanding number of affirmed cases based on the Department of Health (2020) online tracker report, higher regulation instruction was picked to utilize the online learning framework. Be that as it may, a few understudies have appeared small to no interest in learning in a web environment due to a need for assets and preparation. With this, colleges have battled to oblige the sudden alteration from face-to-face to online learning (Chua et. al., 2020).

In Kolehiyo ng Pantukan, the understudies have positive and negative encounters in their learning of approximately nonconcurrent instruction (Diez et al.,2021). Their most essential challenge is associated with their learning environment at home, though their scarcest challenge is mechanical instruction and competency. The disclosures energized analysts to reveal that the COVID-19 far-reaching had the foremost noticeable impact on the quality of the learning experience and students' mental well-being. With this, current courses of action can be overviewed to address fruitful online learning in the present-day sort.

According to a study by Muhammad and Kainat (2020), problems with internet access, a lack of engagement between students and teachers, and a lack of technology resources all reduce the efficiency of online learning. Due to inadequate infrastructure, pupils have limited access to the internet. The attitudes of the students have an impact on how effective online learning is.

Researchers believe that there is a real need to conduct this study by using the digital literacy of students and their attitudes towards online learning since it will deliver little data, particularly on instructions and research. It provides observational data that might be investigated and used to create learning modalities that will fit the display conditions of our institution, ranging from the conventional to flexible options for teaching and learning for the students.

**Statement of the Problem**

The purpose of this study was to determine the significant relationship between Digital Literacy and Online Learning Attitudes of BTLED students in Kolehiyo ng Pantukan.



This study aims to examine the BTLED students using digital literacy and their attitudes towards online learning.

Specifically, this proposal seeks to answer the following questions:

1. What is the level of digital literacy of BTLED students in terms of:

    1.1 Understanding Digital Practices;

    1.2 Finding Information;

    1.3 Using Information and;

    1.4 Creating Information?

2. What is the level of online learning attitudes of BTLED students in terms of:

    2.1 Cognitive attitudes;

    2.2 Affective attitudes and;

2.3 Psychomotor attitudes?

3. Is there a significant relationship between the digital literacy and online learning attitudes of BTLED students?

**Null Hypothesis**

The null hypothesis was tested at 0.05 level of significance.

***$HO_1$:*** There is no significant relationship between digital literacy and online learning attitudes of BTLED students in Kolehiyo ng Pantukan.

**Review of Related Literature**

This chapter discusses the data that has been acquired to support the research of digital literacy and student attitudes towards online learning. Digital Literacy, the independent variable, represents the understanding of digital practices, including finding, using, and creating information and psychomotor attitudes, while online learning attitudes, the dependent variable, represents the cognitive, affective, and psychomotor attitudes.

*Digital Literacy*

The ability to understand, evaluate, and make use of the different information sources that we can access through digital tools, devices, and resources is known as digital literacy (Dinata, 2021). It encompasses a broad range of skills, all of which are necessary to flourish in a world that is becoming more and more advanced. Educators must have advanced proficiency abilities to better prepare understudies to be profitable citizens of society. At the show, it

plays a vital part in the education and learning process. Paul Glister made the phrase "digital literacy" well-known in 1997. It was essentially "Literature of the Digital Age," in his opinion.

In addition, being digitally literate means having the knowledge and skills to use a variety of cutting-edge gadgets in a variety of ways (Mantiri, Hibbert, & Jacobs, 2019). According to Widona (2020), "Digital literacy is the ability to utilize and make technology-based content, count, find, and share data, reply to inquiries, and associate with others and computer programming.

Furthermore, Shannon's (2017) research, a set of competencies known as digital literacy is needed to fully participate in the information society. It integrates technology for communication, expression, collaboration, and support, including smartphones, tablets, and desktop computers. These definitions suggest a distinction between knowledge and competency, but in actual practice, especially in the educational setting, it is more difficult to make that distinction.

To conclude, agreeing with Maulana (2015), "on this day, education is fundamental. Digital literacy is the capacity to get, analyze, and utilize data in different shapes from shifted sources that we can access through innovation. Within the time of the mechanical transformation 4.0, data is simple to spread and effortlessly open. Subsequently, we must take advantage of this situation for the greater good. Ready to know what is good and what isn't through computerized literacy."

*Understanding Digital Practices*

Advanced learning is upheld by the understanding of computerized education. In Mardiani et al. (2021) computerized innovation is becoming an integral part of the instructive world, and advanced education has ended up a fundamental ability to investigate and handle data and messages as much as conceivable. Also, the impact of a computerized society is taken into account in relation to research and education (Di Giacomo et al., 2017; Pinto et al., 2020). (Ferreira-Mello et al., 2019; Stopar & Bartol, 2019). Similar to how the word "computerized change" encompasses a vast and shifting range of wonders (Audrin, 2019; Vial, 2019), there are numerous approaches for dealing with the notions of "computerized abilities" in instructional writing, each with its own specifics and definitions.



To reshape education and learning, it is essential to comprehend what people do with technology in their everyday lives and how they browse, write, and communicate in computerized environments. In any event, Bhatt, de Roock, and Adams' (2015) investigation of common digital literacy practices highlights a significant methodological difficulty. These challenges related to looking at advanced education hones require research strategies that can offer more conceivable outcomes than routine strategies such as interviews and perceptions. A few Education Ponders students have expressed a view that is similar to this. According to Bhatt, de Roock, and Adams (2015), researchers should look into contemporary methods for capturing, managing, and analyzing the characteristics

of computerized literacies in order to understand advanced literacy in education much better.

*Finding Information*

Information searching, too alluded to as questioning, alludes to well-defined, focused data looking for clearly verbalized data required, that's once you have a fairly clear idea of the kind of data you would like. Data requirements and information-seeking behavior revolve around users' point-by-point data, claims Chinnasamy (2017). Although data requirements can alter, they are typically linked to an individual's professional activities (Demergazzi et al., 2020; Joel et al., 2019; Sycz-Opo, 2019; Bashir et al., 2018). E-learning will usher in the next phase of education. The topic of e-learning research is characterized by a broad range of applications.



Data innovation benefits students since it enables them to access guidelines resources just in time, regardless of time or location (Bashir & Warraich, 2020). These factors have resulted in the internet and its resources being more accessible. Information-seeking in humans is the process of looking for information to fulfil a need. It can be challenging to spot this conduct at times. People have always sought out information. As the digital world has become more complicated, it has become challenging to monitor and fill the information gap left by the data stream (El Maamiry, 2016).

Moreover, users from all areas of life rely on data seeking and getting to satisfy their needs, from finding flights to discovering data needed to complete

work commitments, according to Berget and MacFarlane (2020). Furthermore, Kadir et al. (2018) make it clear that the rapid expansion of data during the exhibition period has important implications for college students' learning and library use.

Individual information-seeking behavior in higher education may be a comparatively new area of study, according to Weber et al. (2019). The data source may be a crucial part of the idea or preparation while looking for data, and several obstacles affect how college students use and engage with that information (Thindwa et al., 2019).

*Using Information*

Information utilization is concerned with understanding what data sources individuals select and how individuals apply data to form a sense of their lives and circumstances. The primary factor for the need for education in virtual classrooms and the research into its factors is a strong desire to use technology to provide easier, larger, and more diverse access to learning resources in order to address the issue of distance between students and tutors and to facilitate increased interaction and collaboration in online classes (Siemens, Gaevic, & Dawson, 2015). Digital literacy has an impact on one's ability to use the digital environment (Spante, 2018).

By energizing students and advancing relief and autonomy in their development, distinctive applications of data innovation provide amazing benefits for students. The effective use of data innovation fosters and develops a variety of

talents in students, including mathematical aptitudes, communication aptitudes, fundamental thinking abilities, problem-solving, teamwork, and aptitudes for research (Reinhold et al., 2020).

Students are empowered by innovation to request classes online at their convenience. Online classrooms are inspiring methods for facilitating learning from anywhere in the world. Students can pick up the fundamentals of spelling, proofreading, and other early informative lessons through entertaining computer simulations. To memorize information and increase their contemplation time, students can choose which media they prefer. To be present as sources of information, understudies are no longer solely subject to teachers, parents, or other taught people. Technology levels the playing field in many ways, giving students control over their claim learning (Smarter, Services, 2017).



However, according to Gaille, data innovation offers additional instructive points of interest, including increased validity for the educator, access to a variety of resources, computerization of gloomy fabric, the development of a collaborative learning approach, easier instruction of center key expertise, advancement of the classroom, centralization of the necessary information, allowing students to work at their own pace, and the chance to memorize entirely different information (Gaille, 2018).

Regarding the negative effects of data innovation in education, Gaille also makes the following claims: it may distract students, keep them from face-to-face interactions, facilitate cheating, disadvantage some students, cause them to use

questionable resources for learning, make setting up educational programs more difficult or expensive, replace the teacher, raise security concerns, and possibly even cause therapeutic problems (Gaille, 2018). A worrying problem is that students regularly misuse data innovation by wasting hours on the computer and using it for pointless activities like Facebook and other games.

*Creating Information*

As a result of technological advancements, several online environments can be linked through hybridized teaching that combines traditional and virtual venues. Gamification, augmented reality, virtual reality, and mixed reality have all gained popularity in education as a result of the flipped classroom's use of technology. Moreover, social learning allows for personalized instruction, customized content, and skill development (Segura, etc., 2021).



The instrumental perspective of advanced proficiency is comprehensively presented in five major ranges, they are understanding the computerized world of computing framework and connection, network, equipment, working frameworks, and computer program, online encounter comprising understanding web, working with web, emailing, clouds and online communication, efficiency programs made up of understanding application, making individual reports with Microsoft Word, overseeing and calculating information with Microsoft Exceed expectations, making introductions with Microsoft PowerPoint, putting away and recovering information with Microsoft Get to, computerized security and privacy counting securing computer and information from hurt and defending security, extending

computer to other gadgets, advanced cameras, and photography and working with music and video (Wempen, 2015). Here, digital literacy is recognized as the capability to successfully lock in ICT innovation when finding, assessing, making, and communicating data.

Furthermore, creating substance (Siagian & Yuliarti, 2021), sorting out and sharing substance, reusing substance, filtering and selecting fabric and self-broadcasting in social systems are imperative components within the world of computerized education (Sagitaa et al., 2019). A speaker, in making substance for addresses, must be ensured not as it were to be studied or tuned in to by students, but too incorporate informational or assignments to listen and review (inquire to keep in mind), take after the instructional exercise illustrations appeared, hone the aptitudes or knowledge they have learned (inquire to demonstrate) and make it different circumstances and conditions (Ridha, 2021).



*Online Learning Attitudes*

Online learning is any sort of teaching that is provided through digital technology (e-learning). These methods integrate text, audio, animations, movies, and visual graphics. Online pedagogy can also enhance group learning and the assistance of teachers in specific professions (Wan Aziaris, 2015). Yet, learning is an essential component of development and state advancement (Hafeez et al., 2020). There are two types of learning: face-to-face and online or blended learning, as stated in earlier studies (Ajmal and Hafeez, 2021; Saira and Hafeez, 2021).

Due to the development of technical tools and the spread of the deadly Covid-19 Pandemic, distance learning, and online education have become more popular in higher education institutions recently. Technology has a big part to play in this kind of learning style (Martin and Bolliger, 2018). As a result of growing globalization, transparency, and sustainability consciousness, universities are confronting tremendous problems (Salvioni, Franzoni, and Cassano, 2017; Crane et al., 2019). Utilization and the results of fast-changing technology are among the beneficial motivators.

During COVID-19, higher education institutions are undergoing a paradigm shift that primarily concerns how higher education institutions might approach personalized and interactive online learning with learning as the primary concentration. In the Covid-19 conditions, pedagogical and didactic changes that focus on the learner and allow for access to course content through openness, group learning, and networking are urgently required (Ortagus and Derreth, 2020).

Moreover, according to Karaaslan and Kiliç's (2019) investigation of students' attitudes toward blended learning concerning six different learning aspects, high achievers tended to have positive attitudes toward all of them, whereas low achievers required more face-to-face in-class time, interaction, and study management support. The attitudes and behaviors that make a person better and more socially acceptable are developed and maintained by education (Kooli, Zidi, and Jamrah, 2019).

Furthermore, as stated by Mahajan and Kalpana (2018), before the epidemic, online learning has never been acknowledged and accepted as a legitimate kind of education. Online learning is a type of education that may be completed without going to physical classes and is conducted through the internet. The benefits of online learning incorporate adaptability and comfort (Bower et al., 2015). It is conceivable to utilize different online learning exercises applications, websites, social systems, or learning administration frameworks (LMS). Different stages can disseminate materials, assess, or collect assignments to encourage learning. In this respect, LMS gives comprehensive and easy-to-use highlights that empower viable learning (Gunawan et al., 2020). In any case, separate learning has various impediments in comparison to face-to-face instruction. Hence, it isn't continuously conceivable for students to discover a removed instruction framework engaging and worthy (Hassan et al., 2020). In expansion, numerous students discover it challenging to comprehend the online lesson material.



*Cognitive Attitudes*

Huang, Robinson, and Cotten (2015) discovered that students' emotional costs, as an extension of mental access, negatively impacted their perceptions of the efficacy of technology. Regarding the cognitive components of learning, Chua & Luyun (2019) emphasized that online learning has a negative impact if it is not given enough attention due to the large cognitive load generated by the improper design of online learning activities. According to Malik & Javed (2021), this can result in students feeling more stretched than usual when attending their online

classes, and sustained strain over time can have an impact on the student's academic performance, mental health, and physical welfare.

In contrast to the discoveries, Heersmink (2016) argued that the observational data currently available in cognitive brain research does not strongly support generalizations about the Internet's detrimental effects on memory. When he recently claimed that online learning genuinely has a detrimental influence, he included the requirement for ecologically-valid proof. The learning of students is negatively impacted parallel to this (Ginns & Leppink, 2019) when there are too many competing demands on working memory or cognitive burden from many processes.

Online programs in higher instruction are not distinctive from on-campus programs in terms of advancing critical thinking, and however new instructing procedures in online environments can cause difficulties with respect to the leading strategies for cultivating critical thinking (Hussin et al., 2019). Endeavors have been made to advance critical thinking utilizing online dialogue sheets and text-based communication (eg., Belcher et al.., 2015) and course educational programs changes (eg., Nold, 2017).

*Affective Attitudes*

This speaks of how someone feels after experiencing something. Here, our thoughts or sentiments concerning something, such as dread or hatred, are brought to the forefront. There is a range of occurring mental states or encounters that reasoning and brain research classify as effective. Included in this category

are torments, joys, dispositions, and feelings. One confusing issue is whether emotional encounters are just non-intentional crude feels or representational states which display objective, truth-evaluable, states of undertakings (Mitchell, 2019).

Even with the use of numerous online learning technology platforms and a variety of learning techniques, face-to-face instruction could not be beaten by online learning (Sadeghi, 2019; Kireev et al., 2019). Students were less free to ask teachers questions about content they did not understand or that was lacking in it because of the teachers' absence in the classroom (Lawrence et al., 2019).

Yet, teachers struggled to adequately monitor their students' learning attention, observe all students' learning progress, and observe students' behavior when they were studying online (Valverde-Berrocoso et al., 2020). According to Trespalacios, "building a social presence and identity in an online learning environment is not easy due to the constrained path or channel of communication and due to the transactional distance" (Trespalacios & Lowenthal, 2019).

Affective domains must be instructed with kindness, trustworthiness, inspiration, certainty, communication, time administration, collaboration, backing, and regard (Mirza & Mahboob, 2021). Full of feeling spaces, as per Bloom's scientific classification, include interface, values, and demeanors associated with acceptance or dismissal of something, inspiration to memorize, and instruction to participate in learning (Rozi et al., 2020).

The behavior of students who exhibit positive appreciation in the whole range of feelings, for instance, the joy in the learning environment and their genuine interest during the learning process, can be seen (Ahmad, 2020). Moreover, (Bali & Musrifah, 2020) the emotionally affected students' learning interests, the implications of honesty, and a sense of duty are all connected.

*Psychomotor Attitudes*

According to Kunandar, the development of psychomotor abilities comes as a result of mastering knowledge competencies (cognitive and affective), which are directly associated with learning (Haristo Rahman, 2020). Psychomotor abilities include discernment connected to how the five senses work, such as the ability to recognize colors. The student's physical and emotional abilities to make changes are related to their availability. Developments carried out following the examples provided are related to guided developments. Independent motions are tied to accustomed advances without the need for illustrations. Complex movements are focused with suitably developing developments independently of one another. The ability to adjust developments to current measures is related to development modification. The capacity to create unused development freely is a necessary component of creativity.

Moreover, according to Seymour-Walsh et al. (2020), the psychomotor domain is straightforward to impart in face-to-face classes. In the cognitive and affective areas, specific activities trigger the development of the psychomotor ability (Lestari et al., 2017). (Haristo Rahman, 2020). Using motor skills, physical

movement, bodily coordination, and abilities improvement evaluated in speed, separation, process, exactness, methods, and procedures are also included in the psychomotor domains of learning.

Learning is an endeavor to obtain information, involvement, and skills from different sources. Learning involves people successfully achieving goals and then making it a worthwhile personal endeavor (Dhaifi, 2020). The qualities of learning can be divided into two categories: learning results in changes in behavior and information that change as a result of deliberate efforts; the latter also produces untapped potential. While learning can be defined as an intentional movement made by students under the direction of teachers to achieve a change (Betwan, 2019).



There are several definitions and classifications in the text that is currently available on computerized education, abilities, and competences, but there is still no consensus on the broad subjects and subsidiary themes categories (Heitin, 2016). According to van Deursen et al. (2015), existing inventories of Web skills suffer from "incompleteness and over-simplification, conceptual ambiguity," and Web skills are essentially a subset of digital skills. Although this sector has already seen a ton of study, this term paper aims to provide a general framework of computerized zones and topics that can best illustrate computerized capabilities in the innovative setting of industry 4.0 and the swiftly spreading epidemic digitalization. This study can serve as a starting point for developing a modern advanced literacy framework that enables schools to reach out to a modern broad organization of students rather than being constrained by geological boundaries

and allowing them to access the learning material whenever it is convenient for them.

**Theoretical and Conceptual Framework**

The UNESCO Global Framework for Digital Literacy (2018), which emphasizes on understanding digital practices, finding information, using information, and creating information, serves as the study's foundation.

Law et al. (2018) advise adopting the Pathway Mapping methodology to operationalize the Digital Literacy Global Framework (DLGF), putting less emphasis on the internal validity of an assessment and more on how users perceive digital literacy in diverse circumstances. The difficulty of balancing internal and external validity will eventually need to be addressed by the digital literacy assessment based on DLGF, both through methodological considerations and the design of the digital literacy assessment instrument. Because it advances UNESCO's truthful program and generates and disseminates the useful, accurate, and policy-relevant knowledge needed in today's continuously complex and quickly shifting social, political, and financial situations, researchers decided to use this framework as the basis for their study. Also, this study connects to the first indicator, which is understanding digital practices that concentrate on the domain of digital practices, which refers to studies on how people interact with and use digital technologies, as well as what they do with them. Finding information refers to the ability to identify, evaluate, organize, utilize, and convey information in all of its various forms, especially in situations where judgment, problem-solving, or

knowledge development are required. Using information means through using facts in a variety of circumstances. Information may occasionally be used strategically to carry out practical actions. Information is occasionally applied intellectually. Not least of all, creating information entails understanding that the purpose, message, and conveyance of information are intentional creations. Professionals who comprehend the nature of information creation evaluate the usage of the information by taking into account both the underlying procedures and the results.

The Commission on Higher Education (CHED) first action was to adopt and put into effect Commission en Banc, Resolution No. 412-2020, series of 2020, which outlines guidelines for private and public higher education institutions on how to implement flexible learning and addresses cognitive, affective, and psychomotor attitudes.



By its current circumstances, an institution may implement an innovative model of learning with the help of the resolution. It has become an urgent need to investigate other inventive learning modalities that will encourage relocation from conventional to adaptable instructing and learning alternatives. As learners are in unexpected ways arranged in terms of time, pace, and put, these choices permit customization of conveyance modes responsive to students' need to get quality instruction.

The figure 1 describes the conceptual framework of the study that has the following variable. The independent variable is digital literacy that is anchored in UNESCO's Digital Literacy Framework (2018) with the following indicators namely: understanding digital practices, finding information, using information, and creating information. The dependent variable is the online learning attitudes based on the Commission en Banc, Resolution No. 412-2020, series of 2020, regarding as the Guidelines on the implementation of Flexible Learning that indicates cognitive attitudes, affective attitudes, and psychomotor attitudes.

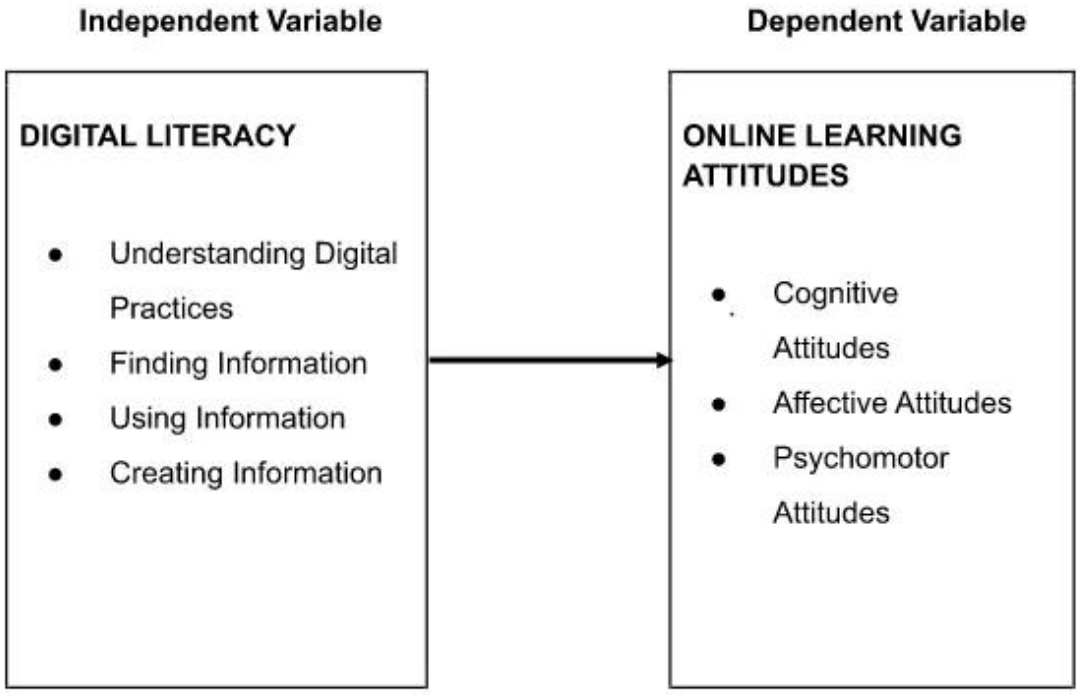



***Figure 1.*** *The Conceptual Framework of the Study*

## Significance of the Study

The study is considered significant because it discusses the online learning attitudes of the BTLED students who will benefit and will provide better understanding about digital literacy.

The following individuals will gain knowledge about digital literacy as a result of the study's findings.

*School Administrators.* The result of the study may serve as a basis for them to apply these aptitudes within the classroom, which is able in turn nurture a solid feeling of digital citizenship in the students. They will gain knowledge about the best ways to support teachers in guiding both students and teachers toward digital literacy.

*Students.* Students will be greatly benefited from the present study as they will be exposed and familiarized with the issues and open to the solutions needed in digital literacy. This research may enlighten them and help them in their future career.

*Technology and Livelihood Teachers.* All teachers at all levels, students in academic fields unrelated to computers, and employees in administrative positions at schools may benefit from the study's findings. To foster a more favorable attitude toward the use of technology, the teachers will become more effective and productive in the development of their online learning-related teaching techniques.

*Future Researchers.* This study would make them realize and broaden their knowledge about the importance and the possible effects of digital literacy. They could even assess the issue of online learning for the students.

**Definition of Terms**

The following terms were operationalized and conceptualized for the study.

*Digital Literacy.* It is the capacity to search, analyze, and communicate data in a digital or online format. Digital literacy is a set of skills that enables a person to use digital devices effectively in the digital age. These skills include being able to easily obtain, evaluate, analyze, apply, and synthesize data as well as produce new information (Ferrari, 2012). This study defines digital literacy as having the abilities required to function in a community where access to information and interaction are growingly conducted through digitalization like web sites, media platforms, and portable devices, particularly when it comes to fostering your fundamental thinking abilities.

*Digital practices.* The study of human behavior and human relationships with technology is referred to as the focus area of digital practices. Several stakeholders involved in who reads and writes, what, when, and why participate in digital literacy practices (Barton, 2012). Each of these elements in this study is crucial in determining how practices are shaped. This highlights the necessity to properly investigate, record, and understand artifacts, natural contexts, participants, and practices-related activities.

*Online Learning Attitudes.* A crucial component of learning settings aided by online learning technologies. Regarding attitude objects, attitudes are about one's thoughts, emotions, and behavior. Strong attitudes can influence behavior, and favorable attitudes toward learning may help people apply learning tactics more successfully (Maio & Haddock, 2009). This study is likely to cause progressed learning execution and superior behavioral maintenance in online learning situations since learners have more positive attitudes toward learning situations.

*Cognitive Attitudes.* This refers to the thought, perceptions, or ideas of the person toward the object of the attitude. Garret, Coupland, and Williams (2003) state that the cognitive attitude can be classified into four steps: interfacing the past information and the unused one, making modern information, checking unused information, and applying the modern information in any circumstance. In this study, these cognitive features described mental blockage, difficulty concentration, and a preoccupied mind.

*Affective Attitudes.* This relates to how you feel “positively or negatively” about a situation. According to Kilinc et al. (2016), attitudes toward technology can be categorized as emotions or feelings (good or negative), expressed in terms of anxiety, curiosity, or taste. In this study, the affective aspect of attitude deals with someone's emotions towards an object, with or against, likes or dislikes.

*Psychomotor Attitudes.* Is the use of movement abilities, namely physical coordination (Oktavia et al., 2019). Regardless of the topic, every sophisticated psychomotor talent requires certain information, abilities, and attitudes that set it

apart and help someone who masters the skill transition from being a student to a qualified professional (Fernandez, 2014). In this study, the development of these skills is measured in terms of execution speed, accuracy, removal, methods, or procedures to ensure that students learn information skills necessary for daily life and to keep them interested.

# CHAPTER 2

# METHODS

This chapter describes the study's numerous methodologies, including the research design, research respondents, research instruments, statistical tools, and data collection techniques.

## Research Design

In particular, the descriptive correlational design was a quantitative research technique used in this study. Data gathering and analysis are procedures in quantitative research that are used to make predictions, evaluate causal relationships, uncover patterns and averages, extend results to wider groups, and detect correlations (Bhandari, 2022).

A descriptive correlational research design was adopted in this study. With a correlational research design, relationships between variables are looked at without any of the variables being directly under the researcher's control or manipulation. A correlation reveals the strength and/or direction of the relationship between two or more variables. A correlation's direction may be either positive or negative (Bhandari, 2022). To compare the attitudes of BTLED students in Kolehiyo ng Pantukan towards online learning and digital literacy, the researchers used a descriptive correlational methodology.

The descriptive technique of study seeks to ascertain students' cognitive, affective, and psychomotor learning attitudes as well as their level of digital literacy. To be more precise, the correlational approach is also used in this study to ascertain how BTLED students' perceptions toward online learning and digital literacy relate to one another.

**Respondents**

The respondents of this study were all BTLED students from first year to fourth year in Kolehiyo ng Pantukan and enrolled in this academic year 2022-2023. The researchers used a complete enumeration in this study. In general, complete enumeration is utilized to calculate the population's unknowable parameters. These techniques don't produce precise results. Information is collected from every unit of the total population during a thorough enumeration census (Gautam, 2020). Based on the record in the registrar, there were 75 BTLED students from first year, 53 from second year, 54 from third year, and 67 from fourth year. A total population of 249 all BTLED students in Kolehiyo ng Pantukan.

## Table 1

## Distribution of Respondents

| Bachelor of Technology and Livelihood Education | Population |
|---|---|
| First Year | **75** |
| Second Year | **53** |
| Third Year | **54** |
| Fourth Year | **67** |
| **TOTAL** | **249** |

## Research Instrument

The researchers utilized a questionnaire as an instrument for data gathering using the Five-Point Likert Scale. A Likert Scale (usually) offers five options for responses to a statement or question, allowing respondents to express how strongly they agree or disagree with the statement or questions on a positive-to-negative scale (McLeod, 2019). The researcher would adapt and modify the questionnaire and submit it to the adviser for correction to assure the content validity of the terms. Content validity was facilitated in order to establish the validity of the survey instrument. Research professionals and experts in quantitative research carried out the instrument's validation. All corrections and suggestions from the validators were consolidated before pilot testing was conducted. Meanwhile, a reliability test was run to determine the internal consistency of the research instrument. Based on the reliability test a Chronbac's Alpha ($\alpha = .8$) was derived. As a rule of thumb, Cronbach's alpha of $\alpha > .9$ is considered to have excellent internal consistency (Salkind,2015). Thus, the survey instrument was administered.

Being Digital: Digital Literacy Checklist from The Open University (2012) was used in this study to assess respondents' digital literacy, while online learning attitudes were evaluated using Online learning attitudes and basic computer literacy of teacher education students (Ferrer, J. C. & Corres, J.C., 2022). The survey concerns the attitudes of BTLED students in Kolehiyo ng Pantukan about online learning and digital literacy. Digital literacy; the following independent variables (understanding digital practices, finding information, using information,

and creating information) and dependent variables: Online Learning Attitudes (cognitive attitudes, affective attitudes, and psychomotor attitudes). Overall indicator in the test questionnaire had 35 test items.

The questionnaire is given to the respondents through Google Forms and they are asked to check their chosen responses. There are five questions per indicator, 20 items in the independent variable (digital literacy), and 15 items in the dependent variable (online learning attitudes) equivalent to 35 question items. Each item in an independent variable questionnaire has five response options with the following numerical weights: 5 are confident, 4 are fairly confident, 3 are somewhat confident, 2 are slightly confident, and 1 is not confident. Meanwhile, dependent variable questionnaires also have five response options with the following numerical weights: 5-always, 4-often, 3-sometimes, 2-seldom, and 1-never.

For the independent variable, the researchers employ the following parameter limits:

| Parameter Limits | Description | Interpretation |
|---|---|---|
| 4.50-5.00 | Confident | This means that the level of Digital Literacy is evident in all occasions. |
| 3.50-4.49 | Quite Confident | This means that the level of Digital Literacy is evident in most occasions. |
| 2.50-3.49 | Somewhat Confident | This means that the level of Digital Literacy is evident in some occasions. |
| 1.50-2.49 | Slightly Confident | This means that the level of Digital Literacy is rarely evident. |
| 1.00 - 1.49 | Not Confident | This means that the level of Digital Literacy is not evident. |

For the dependent variable, the researchers employ a parameter limit. The descriptive equivalents are the following:

| Parameter Limits | Description | Interpretation |
|---|---|---|
| 4.50-5.00 | Always | This means that the level of Online Learning Attitudes is evident in all occasions. |
| 3.50-4.49 | Often | This means that the level of Online Learning Attitudes is evident in most occasions. |
| 2.50-3.49 | Sometimes | This means that the level of Online Learning Attitudes is evident in some occasions. |
| 1.50-2.49 | Seldom | This means that the level of Online Learning Attitudes is rarely evident. |
| 1.00 - 1.49 | Never | This means that the level of Online Learning Attitudes is not evident. |

**Data Gathering Procedure**

The researchers did the following when acquiring the important data for this study:

*Seeking Permission to Conduct the Study.* The researchers applied for ethics approval to carry out the study after the research protocol included herein was reviewed by the research ethics committee. The researchers made a letter addressed to the College President through the Dean of the Bachelor of Secondary Education asking permission to conduct the said study and it was noted by the research adviser. After that, the validation of the questionnaires was done by the three research experts. Another letter was submitted to the College President of Kolehiyo ng Pantukan for her approval to conduct the study concerning the Digital Literacy and Online Learning Attitudes of BTLED Students in Kolehiyo ng Pantukan.

*Administration and Retrieval of the Questionnaire.* The survey was given to the respondents by the researchers through google form after approval. After they answered, the researchers immediately retrieved the questionnaire and checked the respondent's answers via a google form. The researchers assured the respondents that their answers were held confidential.

*Checking, Collating and Processing of Data.* The researchers administered, retrieved, checked, and collated the data through google form and tallying all the google spreadsheets as follows. These were given to the statisticians for computation and analysis. Interpretations were done by the researchers.

**Statistical Treatment of Data**

The data gathered is tabulated and analyzed using the statistical tool below.

*Mean.* The sum of the values in the group divided by the total number of values is what is referred to as the arithmetic average. This is used to determine the level of digital literacy and online learning attitudes of BTLED students. The mean of a dataset is calculated by dividing the sum of all values by the total number of values (also known as the arithmetic mean, which differs from the geometric mean). The most common central tendency metric is known as the "average" and is utilized in many different contexts (Bhandari, 2023).

*Pearson r.* Is a statistical technique for determining whether or not variables are often related. This tool is being used to identify the relationship between digital literacy and online learning attitudes of BTLED students in Kolehiyo ng Pantukan. The Pearson correlation coefficient, which measures a linear relationship, is the most widely used approach (r). It runs from -1 to 1, and it indicates the strength and direction of the relationship between two variables Turney, (2022).

*Probability.* In the event that the null hypothesis is true, this is the p-value for achieving the results and the least extreme as the observed outcomes of a statistical hypothesis test. To indicate the least level of significance at which the null hypothesis would be rejected, the p-value is employed as an alternative to rejection points. Stronger evidence supports the alternative hypothesis, which is shown by a lower p-value. It was used to measure the likelihood that an event occurred in a random experiment (Radke, 2017).

## Ethical Consideration

The BTLED students who are under ethics supervision are the investigation's main focus. This study focuses on BTLED students' attitudes about online learning and their level of digital literacy. The following ethical principles are upheld in this study:

***Voluntary Participations.*** The researchers inform the respondents of their willingness to participate in this study. This is determined upon signing their informed assent or consent forms.

***Privacy and Confidentiality.*** The researchers fully adhere to the Data Privacy Act of the Philippines and will observe the confidentiality of the respondents. All data will be secured, and kept private, and the identities of the respondents shall be kept confidential.

***Informed Consent Process.*** The principle of respect for persons that will be solicited with consent, and how and when it will be done will be undertaken and secured.

***Recruitment.*** The respondents in this study are determined with inclusion criteria after getting the right sample size.

***Risks and Benefits.*** The researchers ensure that this study is free from any risk that will harm the respondents and that the benefits of this study will be for the respondents.

# CHAPTER 3

# RESULTS AND DISCUSSIONS

The researcher presents, analyzes, and interprets the data collected in this chapter in both written and tabular formats.

## Level of Digital Literacy of BTLED Students in terms of Understanding Digital Practices

Table 2 provides data on the level of digital literacy among BTLED students in terms of understanding digital practices as to the weighted mean obtained from the respondent on the items concerning the level of understanding of digital practices.

The results reveal that item number 3 *"I choose the right tool to find, use, or create information"* is a descriptive equivalent of quite confident and the highest weighted average mean of 4.27. On the other hand, the number 2 *"I use online tools and websites to find and record information online"* obtained a weighted mean of 4.23 and quite confident as the descriptive equivalent. Followed by item number 1 *"I know what categories of users I can expect to find online"* get the weighted mean of 4.16 with a descriptive equivalent of quite confident. Next is item number 4 *"I find a person online, for example, an expert in my discipline, and establish their contact details"* which has a weighted mean of 4.04 with a descriptive equivalent of quite confident. And lastly, in item number 5 *"I present myself online using my digital identity"* the lowest weighted mean of 4.00 and the descriptive mean of *"*quite confident*"* were obtained.

The overall average mean for BTLED students' understanding of digital practices is 4.14, with a descriptive equivalent of "Quite Confident," indicating that this is evident in most occasions.

This study is supported by Shannon's (2017) research, a set of competencies known as digital literacy is needed in order to fully participate in the information society. It integrates technology for communication, expression, collaboration, and support, including smartphones, tablets, and desktop computers. These definitions suggest a distinction between knowledge and competency, but in actual practice, especially in the educational setting, it is more difficult to make that distinction.

In addition, cited by Bhatt, de Roock, and Adams (2015) state that investigation of common digital literacy practices highlights a significant methodological difficulty. These challenges related to looking at advanced education hones require research strategies that can offer more conceivable outcomes than routine strategies such as interviews and perceptions.

**Table 2**

**Level of Digital Literacy of BTLED Students in terms of Understanding Digital Practices**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. I know what categories of users I can expect to find online.* | 4.16 | Quite Confident |
| *2. I use online tools and websites to find and record information online.* | 4.23 | Quite Confident |
| *3. I choose the right tool to find, use, or create information.* | 4.27 | Quite Confident |
| *4. I find a person online, for example an expert in my discipline, and establish their contact details.* | 4.04 | Quite Confident |
| *5. I present myself online using my digital identity.* | 4.00 | Quite Confident |
| **OVERALL MEAN** | **4.14** | **Quite Confident** |

**Level of Digital Literacy of BTLED Students in terms of Finding Information**

BTLED students' level of digital literacy is depicted in Table 3 in terms of their ability to research topics online as to weighted mean obtained from the respondent on the items concerning the level of finding information.

Item number 2 *"I use social networks as a source of information"* had a descriptive equivalent of quite confident and the highest weighted mean of 4.27. Then comes, item number 1 *"I am aware of the information available on the internet"* which obtained a descriptive equivalent of quite confident with a weighted mean of 4.25. Meanwhile, item number 5 *"I am aware of when to stop or modify my search approach"* quite confident was the descriptive equivalent of the weighted mean of 4.18. Lastly, item number 3 *"I use advanced search options to limit and refine my search"* and item number 4 *"I swiftly browse or skim a web page to find the most important information"* get the same weighted mean of 4.16 at the same time with the same descriptive equivalent of quite confident.

The total average mean for BTLED students' digital literacy in terms of finding information was 4.20, with a descriptive equivalent of "Quite Confident," signifying that this is evident in most occasions.

This is supported by Weber et al. (2019) explaining that individual information-seeking behavior in higher education may be a comparatively new area of study. The data source may be a crucial part of the idea or preparation while looking for data, and several obstacles affect how college students use and engage with that information (Thindwa et al., 2019).

Moreover, Berget and MacFarlane (2020) states that users from all areas of life rely on data seeking for and getting to satisfy their needs, from finding flights to discovering data needed to complete work commitments, Furthermore, Kadir et al. (2018) make it clear that the rapid expansion of data during the exhibition period has important implications for college students learning and library use.

**Table 3**

**Level of Digital Literacy of BTLED Students in terms of Finding Information**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. I am aware of the information available on the internet.* | 4.25 | Quite Confident |
| *2. I use social networks as a source of information.* | 4.27 | Quite Confident |
| *3. I use advanced search options to limit and refine my search.* | 4.16 | Quite Confident |
| *4. I swiftly browse or skim a web page to find the most important information.* | 4.16 | Quite Confident |
| *5. I am aware of when to stop or modify my search approach.* | 4.18 | Quite Confident |
| **OVERALL MEAN** | **4.20** | **Quite Confident** |

**Level of Digital Literacy of BTLED Students in terms of Using Information**

The weighted mean obtained from the respondents on the items indicating the level of using information is shown in Table 4 as the level of digital literacy among BTLED students.

Item number 1 “I assess whether an online resource (e.g. web page, blog, wiki, video, podcast, academic journal article) or person is credible and trustworthy” earned the highest weighted mean of 4.15 and Quite Confident as the descriptive equivalent. Item number 3 “I keep a record of the relevant details of information found online” garnered a weighted mean of 4.08 and quite confident as the descriptive equivalent. Followed by item number 4 “I use information in different media, for example podcasts or videos,” which received a weighted mean of 4.02 and a descriptive equivalent of quite confident. Next is item number 5 “I use social bookmarking to organize and share information,” which received a weighted mean of 3.97 and a descriptive equivalent of quite confident. Lastly, item number 2 “I use other people’s work or found online without committing plagiarism” received the lowest weighted mean of 3.85 with a descriptive equivalent of quite confident.

The overall average mean for digital literacy among BTLED students in terms of using information was 4.01 with a descriptive equivalent of “Quite Confident,” or “this is evident in most occasions.

This is supported by the study of Siemens, Gaševic, & Dawson (2015) which states that the primary factor for the need for education in virtual classrooms and the research into its factors is a strong desire to use technology to provide easier, larger, and more diverse access to learning resources in order to address the issue of distance between students and tutors and to facilitate increased interaction and collaboration in online classes (Siemens, Gaevic, & Dawson, 2015). Digital literacy has an impact on one's ability to use the digital environment (Spante, 2018).

However, as stated by (Reinhold et al., 2020) by energizing students and advancing relief and autonomy in their development, distinctive applications of data innovation provide amazing benefits for students. The effective use of data innovation fosters and develops a variety of talents in students, including mathematical aptitudes, communication aptitudes, fundamental thinking abilities, problem-solving, teamwork, and aptitudes for research.

**Table 4**

**Level of Digital Literacy of BTLED Students in terms of Using Information**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. I assess whether an online resource (e.g. web page, blog, wiki, video, podcast, academic journal article) or person is credible and trustworthy.* | 4.15 | Quite Confident |
| *2. I use other people's work or found online without committing plagiarism.* | 3.85 | Quite Confident |
| *3. I keep a record of the relevant details of information found online.* | 4.08 | Quite Confident |
| *4. I use information in different media, for example, podcasts or videos.* | 4.02 | Quite Confident |
| *5. I use social bookmarking to organize and share information.* | 3.97 | Quite Confident |
| **OVERALL MEAN** | **4.01** | **Quite Confident** |

**Level of Digital Literacy of BTLED Students in terms of Creating Information**

Table 5 demonstrates the level of digital literacy among BTLED students in terms of creating information regarding the weighted mean obtained from the respondent on the items concerning the level of creating information.

Item number 1 *"I communicate with others online (forums, blogs, social networking sites, audio, video, etc."* the highest weighted mean of 4.13, and the descriptive equivalent of quite confident. Item number 5 *"I use media-capture devices, e.g. recording and editing a podcast or video"* gets the weighted mean of 4.04 and the descriptive equivalent of quite confident. Thereafter, item number 3 *"I work with others online to create a shared document or presentation"* gets the weighted mean of 3.93 and quite confident as the descriptive equivalent. The next item is number 2 *"I add comments to blogs, forums or web pages, observing netiquette and appropriate social conventions for online communications"* which has a weighted mean of 3.88 with a descriptive equivalent of quite confident. Lastly, item number 4 *"I write online for a variety of audiences, such as a webpage or blog article for my personal use, for my fellow students to read, or for anybody in the world to read"* acquired the lowest weighted mean of 3.87 with the descriptive equivalent of quite confident.

The level of Digital Literacy among BTLED students in terms of creating information gets the overall average a 3.97 average and the descriptive equivalent of Quite Confident implies that this is evident in most occasions.

This is supported by (Siagian & Yuliarti, 2021) who states that creating substance, sorting out and sharing substance, reusing substance, filtering and selecting fabric, and self-broadcasting in social systems are imperative components within the world of computerized education (Sagitaa et al., 2019). A speaker, in making substance for addresses, must be ensured not as it were to be studied or tuned in to by students but to incorporate informational or assignments to listen and review (inquire to keep in mind), take after the instructional exercise illustrations appeared, hone the aptitudes or knowledge they have learned ( inquire to demonstrate) and make it different circumstances and conditions (Ridha, 2021).

**Table 5**

**Level of Digital Literacy of BTLED Students in terms of Creating Information**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. I communicate with others online (forums, blogs, social networking sites, audio, video, etc.)* | 4.13 | Quite Confident |
| *2. I add comments to blogs, forums or web pages, observing netiquette and appropriate social conventions for online communications.* | 3.88 | Quite Confident |
| *3. I work with others online to create a shared document or presentation.* | 3.93 | Quite Confident |
| *4. I write online for a variety of audiences, such as a webpage or blog article for my personal use, for my fellow students to read, or for anybody in the world to read.* | 3.87 | Quite Confident |
| *5. I use media-capture devices, e.g. recording and editing a podcast or video.* | 4.04 | Quite Confident |
| **OVERALL MEAN** | **3.97** | **Quite Confident** |

**Summary on the Level of Digital Literacy of BTLED Students in Kolehiyo Ng Pantukan**

Table 6 provides an overview of the level of digital literacy. The study shows that all of the indicators surveyed. It has an overall mean score of 4.08 with a description of quite confident which means that the level of digital literacy is evident on most occasions.

Based on the gathered data, finding information reaped an overall mean of 4.20 which is the highest among the four indicators described as quite confident which means that it is evident in most occasions. On the other hand, understanding digital practices garnered an overall mean of 4.14 with a description of quite confident and significantly implies that it is evident in most occasions. Next is using information with a weighted mean of 4.01 with a description of quite confident which means that it is evident in most occasions. Lastly, the lowest mean was 3.97 for creating information, and the description was “quite confident,” which suggests that it is evident in most occasions.

The total average mean for the Level of Digital Literacy was 4.08, with the descriptive equivalent of being Quite Confident. This indicates that, on most occasions, digital literacy is evident.

The result of the study is supported by Mantiri, Hibbert, & Jacobs (2019) who state that being digitally literate means having the knowledge and skills to use a variety of cutting-edge gadgets in a variety of ways. Moreover, according to Widona (2020), “Digital literacy is the ability to utilize and make technology-based

content, count, find, and share data, reply to inquiries, and associate with others and computer programming.

**Table 6**

**Summary on the Level of Digital Literacy of BTLED Students in Kolehiyo Ng Pantukan**

| INDICATORS | MEAN | DESCRIPTION |
|---|---|---|
| A. Understanding Digital Practices | 4.14 | Quite Confident |
| B. Finding Information | 4.20 | Quite Confident |
| C. Using Information | 4.01 | Quite Confident |
| D. Creating Information | 3.97 | Quite Confident |
| **OVERALL MEAN** | **4.08** | **Quite Confident** |

**Level of Online Learning Attitudes of BTLED Students in terms of Cognitive Attitudes**

Table 7 displays the level of attitudes toward online learning among BTLED students in terms of cognitive attitudes as to the weighted mean obtained from the respondent on the items concerning the level of cognitive attitudes.

Item number 3 *"I am encouraged to direct my responsibility or become independent of my learning" got* the most excellent weighted mean of 4.18 and the equivalent in terms of description is Often. Hereafter, item number 4 *"I am free to learn progress through the topics/lessons at my pace of learning"* gets the weighted mean of 4.17 with the descriptive equivalent of Often. Item number 1 *"I find it difficult in focusing my mind or paying attention to requirements to be completed due to some environmental distractions at home"* gets a weighted mean of 3.90 as well as Item number 2 *"My mind is preoccupied or loaded with activities to think about and finish"* get the weighted a 3.90 mean with the same descriptor equivalent of Often. Lastly, item number 5 *"I feel mentally blocked"* acquired the lowest weighted mean of 3.58 and the descriptive equivalent of Often.

The level of Online Learning Attitudes of BTLED concerning students Cognitive Attitudes gets the overall average a 3.94 average and the descriptive equivalent of Often this indicates that it is evident on most occasions.

This is supported by Chua & Luyun (2019) emphasized that online learning has a negative impact if it is not given enough attention due to the large cognitive load generated by the improper design of online learning activities. According to Malik & Javed (2021), this can result in students feeling more stretched than usual

when attending their online classes, and sustained strain over time can have an impact on the students' academic performance, mental health, and physical welfare.

**Table 7**

**Level of Online Learning Attitudes of BTLED Students in terms of Cognitive Attitudes**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. I find it difficult in focusing my mind or paying attention to requirements to be completed due to some environmental distractions at home.* | 3.90 | Often |
| *2. My mind is preoccupied or loaded with activities to think about and finish.* | 3.90 | Often |
| *3. I am encouraged to direct my responsibility or become independent of my learning.* | 4.18 | Often |
| *4. I am free to learn progress through the topics/lessons at my pace of learning.* | 4.17 | Often |
| *5. I feel mentally blocked.* | 3.58 | Often |
| **OVERALL MEAN** | **3.94** | **Often** |

**Level of Online Learning Attitudes of BTLED Students in terms of Affective Attitudes**

Table 8 displays the level of online learning attitudes of BTLED concerning students' affective attitudes as to the weighted mean obtained from the respondent on the items concerning the level of affective attitudes.

Item number 5 "I have developed self-discipline" received a weighted mean of 4.22 with the greatest descriptive equivalent of Often. Then comes item number 3 "I am confident enough in handling my work" which obtained a weighted mean of 4.12 and a descriptive equivalent of Often. Item number 2 "My assessment of the readiness of senses to accumulate learning is limited" got a descriptive equivalent of 3.84 with a weighted mean of Often. Item number 1 "It is difficult for me to foster reflective, abstract, and creative thinking" got a weighted mean of 3.83 with a descriptive equivalent of Often. Lastly, item number 4 "I become quickly irritated or upset" acquired the least weighted mean of 3.60 with a descriptive equivalent of Often.

The Level of Online Learning Attitudes of BTLED students in terms of Affective Attitudes gets the overall average mean of 3.92 with the descriptive equivalent of Often which means that it is evident on most occasions.

This is supported by the study (Mirza & Mahboob, 2021), in which full of feeling spaces must be instructed with kindness, trustworthiness, inspiration, certainty, communication, time administration, collaboration, backing, and regard. Moreover, (Bali & Musrifah, 2020) states that the emotionally affected students'

learning interests, the implications of honesty, and a sense of duty are all connected.

Furthermore, as stated by (Rozi et al., 2020) states that full of feeling spaces, as per Bloom's scientific classification, include interface, values, and demeanors associated to acceptance or dismissal of something, inspiration to memorize, and instruction to participate in learning. The behavior of students who exhibit positive appreciation in the whole range of feelings, for instance, the joy in the learning environment and their genuine interest during the learning process, can be seen (Ahmad, 2020).

**Table 8**

**Level of Online Learning Attitudes of BTLED Students in terms of Affective Attitudes**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. It is difficult for me to foster reflective, abstract, and creative thinking.* | 3.83 | Often |
| *2. My assessment of the readiness of senses to accumulate learning is limited.* | 3.84 | Often |
| *3. I am confident enough in handling my work.* | 4.12 | Often |
| *4. I become quickly irritated or upset.* | 3.60 | Often |
| *5. I have developed self-discipline.* | 4.22 | Often |
| **OVERALL MEAN** | **3.92** | **Often** |

**Level of Online Learning Attitudes of BTLED Students in terms of Psychomotor Attitudes**

Table 9 shows the level of online learning attitudes of BTLED concerning students of psychomotor attitudes as to the weighted mean obtained from the respondent on the items concerning the level of psychomotor attitudes.

Item number 1 “Online learning eliminates me in actual practice and motor coordination” got the highest weighted mean of 4.03 with a descriptive equivalent of Often. However, item number 2 “Manipulative skills/abilities have limited use/relevance in online teaching and learning due to the needed application for counter checking” has a weighted mean of 4.00 and a descriptive equivalent of Often. Item number 3 “Actual usage of tools and equipment is eliminated in online learning” has a descriptive equivalent of Often and a weighted mean 3.94. Item number 4 “Outcomes of skills and habits cannot be measured immediately as in actual practice” get an average of 3.90 with weights a descriptive equivalent of Often. Lastly, item number 5 “Limited explanation on how to relate symbols with meaning” acquired the lowest weighted mean of 3.79 with a descriptive equivalent of Often.

The Level of Online Learning Attitudes of BTLED students in terms of Psychomotor Attitudes gets the overall average a 3.93 average and the descriptive equivalent of Often which means that it is evident on most occasions.

This study is supported by (Seymour-Walsh et al., 2020) stating that the psychomotor domain is straightforward to impart in face-to-face classes. In the cognitive and affective areas, specific activities trigger the development of the

psychomotor ability (Lestari et al., 2017). (Haristo Rahman, 2020). Using motor skills, physical movement, bodily coordination, and abilities improvement evaluated in speed, separation, process, exactness, methods, and procedures are also included in the psychomotor domains of learning.

**Table 9**

**Level of Online Learning Attitudes of BTLED Students in terms of Psychomotor Attitudes**

| ITEMS | MEAN | DESCRIPTION |
|---|---|---|
| *1. Online learning eliminates me in actual practice and motor coordination.* | 4.03 | Often |
| *2. Manipulative skills/abilities have limited use/relevance in online teaching and learning due to the needed application for counter checking.* | 4.00 | Often |
| *3. Actual usage of tools and equipment is eliminated in online learning.* | 3.94 | Often |
| *4. Outcomes of skills and habits cannot be measured immediately as in actual practice.* | 3.90 | Often |
| *5. Limited explanation on how to relate symbols with meaning.* | 3.79 | Often |
| **OVERALL MEAN** | **3.93** | **Often** |

**Summary on the Level of Online Learning Attitudes of BTLED Students in Kolehiyo Ng Pantukan**

Table 10 is the summary of online learning attitudes. The study demonstrates that each of the analyzed indicators. With an overall mean score of 3.93 and a description of often, it indicates that the level of attitudes toward online learning is evident in most occasions.

Based on the gathered data, cognitive attitudes reaped an overall mean of 3.94 which is the highest among the three indicators described as often which means that it is evident on most occasions. On the other hand, affective attitudes garnered an overall mean of 3.92 with a description of often and significantly implies that it is evident in most occasions. Last but not least, psychomotor attitudes have the lowest mean of 3.93, with a description of often, meaning that they are evident in most occasions.

The overall average mean for the Level of Online Learning Attitudes is 3.93, with the descriptive equivalent of often. This indicates that throughout this term, the Online Learning Attitudes are evident in most occasions.

The result of the study is supported by Karaaslan and Kiliç (2019) stating that investigation of students' attitudes toward blended learning with regard to six different learning aspects, high achievers tended to have positive attitudes toward all of them, whereas low achievers required more face-to-face in-class time, interaction, and study management support. The attitudes and behaviors that make a person better and more socially acceptable are developed and maintained by education (Kooli, Zidi, and Jamrah, 2019). The benefits of online learning

incorporate adaptability and comfort (Bower et al., 2015). It is conceivable to utilize different online learning exercises applications, websites, social systems, or learning administration frameworks (LMS).

**Table 10**

**Summary on the Level of Online Learning Attitudes of BTLED Students in Kolehiyo Ng Pantukan**

| INDICATORS | MEAN | DESCRIPTION |
|---|---|---|
| A. Cognitive Attitudes | 3.94 | Often |
| B. Affective Attitudes | 3.92 | Often |
| C. Psychomotor Attitudes | 3.93 | Often |
| **OVERALL MEAN** | **3.93** | **Often** |

**Relationship Between the Level of Digital Literacy and Online Learning Attitudes of BTLED Students in Kolehiyo Ng Pantukan**

Table 11 shows the relationship between the level of Digital Literacy and Online Learning Attitudes of BTLED Students in Kolehiyo ng Pantukan. The correlation between the indicators of independent variable and dependent variable, the following results are obtained:

The result of the r-value is 0.67 which suggests a substantial positive correlation. Since the relationship between digital literacy and online learning attitudes has an r-value of 0.67, this suggests a strong positive correlation. The independent variable and the dependent variable are related. The p-value, which is less than the level of significance of 0.05, is 0.01 as a result. The null hypothesis is rejected since there is a correlation. It implies that there is a strong correlation between the level of digital literacy and the attitudes of BTLED students at Kolehiyo ng Pantukan towards online learning.

The percentage of the dependent variable's variance that can be predicted from the independent variable is known as the coefficient of determination, abbreviated $R^2$ or $r^2$ and pronounced "R squared." In other words, 45.6% of the variation is attributed to digital literacy among BTLED students in Kolehiyo ng Pantukan.

This is supported by Maulana (2015), stating that on this day, education is fundamental. Digital literacy is the capacity to get, analyze, and utilize data in different shapes from shifted sources that we can access through innovation. Within the time of the mechanical transformation 4.0, data is simple to spread and effortlessly open. Subsequently, we must take advantage of this situation for the greater good. Ready to know what is good and what isn't through computerized literacy.

Additionally, Martin and Bolliger (2018) states that due to the development of technical tools and the spread of the deadly Covid-19 Pandemic, distance learning and online education have become more popular in higher education institutions recently. Technology has a big part to play in this kind of learning style.

**Table 11**

**Relationship Between the Level of Digital Literacy and Online Learning Attitudes of BTLED Students in Kolehiyo Ng Pantukan**

| VARIABLES | r-Value | Interpretation | p-value α = 0.05 | Decision on Ho | Conclusion on Relationship |
|---|---|---|---|---|---|
| A. Digital Literacy<br>B. Online Learning Attitudes | 0.67 | High Positive Correlation | 0.01 | Rejected | Significant |
| Coefficient of Determination ($r^2$) | | | | | 0.456 |

# CHAPTER 4

# SUMMARY, CONCLUSION, AND RECOMMENDATION

This chapter includes the summary of findings, the drawn conclusion and the recommendation based on the result of this study.

## Summary of Findings

The study's most important results are listed below.

1. By looking at its indicators' varied findings, BTLED students' level of digital literacy was identified. The average score for understanding digital practices was 4.14, with the descriptive equivalent of quite confident. Finding information had a 4.20 average and a descriptive equivalent of quite confident, using information had a mean score of 4.01 with a descriptive equivalent of quite confident, and creating information had a mean score of 3.97 having the equivalent of the descriptive quite confident.
2. The mean score for BTLED students' cognitive attitudes about online learning was 3.94, with the descriptive equivalent of often. A descriptive equivalent of often was assigned to affective attitudes, which had a mean score of 3.92. Psychomotor attitudes have a descriptive equivalent of often and a rating of 3.93.
3. Since the p-value is less than 0.01 and the a=0.05, the null hypothesis that there is a significant relationship between digital literacy and online learning attitudes of BTLED students at Kolehiyo ng Pantukan is rejected.

## Conclusions

The conclusions that were reached in light of the findings are listed below.

1. The level of Digital Literacy among BTLED students in terms of understanding digital practices is quite confident; finding information is quite confident; using information is quite confident; and creating information is quite confident. This means that digital literacy is evident in most occasions.
2. The level of Online Learning Attitudes of BTLED students in terms of cognitive attitudes is often; affective attitudes is often; and psychomotor attitudes are often. This means that online learning attitudes are evident in most occasions.
3. There is a significant relationship between the level of digital literacy and online learning attitudes of BTLED students in Kolehiyo ng Pantukan.

## Recommendations

Based on the foregoing conclusion, the researchers arrived at the following recommendations:

1. The school may conduct a variety of seminars and workshops on educational technology for the teacher to be equipped and used in their teaching and learning process in order to improve students' skills towards digital literacy.
2. In particular for distance learning, the school may intensify the conduct of blended learning and utilize different online learning modalities and application that would motivate students' attitude like developing their cognitive, affective, and psychomotor abilities.

3. Future researchers may capture a more representative sample in all courses of the population in higher education.

## *References*

Adnan, M., & Anwar, K. (2020). online learning amid the COVID-19 pandemic students' perspectives. Journal of Pedagogical Research, 1, 45-51. - references - scientific research publishing. (n.d.). Retrieved from https://www.scirp.org/reference/referencespapers.aspx?referenceid=2817077

Audrin, C. (2022, February 10). Key factors in digital literacy in learning and education: A systematic literature review using text mining - education and Information Technologies. SpringerLink. Retrieved from https://link.springer.com/article/10.1007/s10639-021-10832-5

Basilaia, G., & kvavadze, D. (2020). transition to online education in schools during a SARS-COV-2 coronavirus (COVID-19) pandemic in Georgia. Pedagogical Research, 5, article no. EM0060. - references - scientific research publishing. (n.d.). Retrieved from https://www.scirp.org/reference/referencespapers.aspx?referenceid=2847501

Bhandari, P. (2022, November 11). What Is Quantitative Research? | Definition, Uses & Methods. Scribbr. https://www.scribbr.com/methodology/quantitative-research/

Bhatt, I., R. de Roock, and J. Adams. 2015. “Diving Deep into Digital Literacy: Emerging Methods for Research.” Language and Education 29 (6): 477–492.

Bower, M., Dalgarno, B., Kennedy, G. E., Lee, M. J. W., & Kenney, J. (2015). Design and implementation factors in blended synchronous learning environments: Outcomes from a cross-case analysis. Computers & Education, 86, 1–17. https://doi.org/10.1016/j.compedu.2015.03.006

Chua, E., Sibbaluca, B., Miranda, R., Palmario, G., Moreno, R. and T. Solon, J. P. (2020). The Status of the Implementation of theE-Learning Classroom inSelected Higher Education Institutions inRegion Iv-A Amidst theCovid-19 Crisis. Journal of Critical Reviews. ISSN-2394-5125 Vol 7, Issue 11, 2020

CMO_No._-4_s._-2020- Guidelines-on-the- Implementation-of-Flexible-Learning An Educational tool for enhanced mobile e-Learning for technical higher education using Mobile devices for augmented reality

Department of Health (DOH, 2020). Updates on Novel Coronavirus Disease. Retrieved from http://www.doh.gov.ph/2019-nCoV

Diez, J., Ebro, E., Dequito, R. J., & Diquito, T. (2021, September 7). *Uncovering learners' experiences to new normal education: Implications of asynchronous instruction in GE 5 course teaching*. SSRN. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3900954

Dinata, K. B. (2021). LITERASI DIGITAL DALAM PEMBELAJARAN DARING. Jurnal Eksponen, 11, 1–8.

Fauzan, F., Arifin, F., Lubis, M. A. & Firdaus, F. M., (2022). Lecturer's digital literacy ability in the pandemic. Cypriot Journal of Educational Science. 17(4), 1130-1142. https://doi.org/10.18844/cjes.v17i4.7122

Fernandez, C. (2014). Knowledge base for teaching and pedagogical content knowledge (PCK): some useful models and implications for 'teachers' training. Problems of education in the 21st century, 60, 79-100. http://journals.indexcopernicus.com/abstract. php?icid=1114556

Gaur, R., Mudgal, S. K., Kaur, S. and Sharma, R. (2020). Undergraduate nursing students' Attitude towards online classes during lockdown period in India: imposed or Interested? International Journal of Community Medicine and Public Health. Gaur R et al. Int J Community Med Public Health. 2020 Sep;7(9):3371-3377 DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20203892. Retrieved from http://www.ijcmph.com

Ginns, P., & Leppink, J. (2019). Special Issue on Cognitive Load Theory: Editorial introduction. Educational Psychology Review, 31(2), 255-259.

Gunawan, G., Suranti, N.M.Y., & F. Fathoroni F. (2020). Variations of models and learning platforms for prospective teachers during the COVID-19 pandemic period. *Indonesian Journal of Teacher Education*, 1 (2), 61-70.

Hassan, W., Ariffin, A., Ahmad, F., Hamzah, N., Rubani, S., Zakaria, N., & Hassan, W. (2020). Students' perception of using zoom meet webinar during covid-19 pandemic in technical and vocational education. *Journal Of Critical Reviews,* 7, 19.

Heitin, L. (2016). What is digital literacy? Education Week, https://www.edweek.org/teaching-learning/what-is-digital-literacy/ 2016/11

Heersmink, R. (2016). The internet, cognitive enhancement, and the values of cognition. Minds and Machines, 26(4), 389-407.

*Information competencies and information seeking behavior in digital paradigms: A Case of Urdu Literature* . (2021). Retrieved from https://journals.sagepub.com/doi/full/10.1177/21582440211054484

Kilinc, E., Kilinc, S., Kaya, M., Başer, E., Türküresin, H. E., & Kesten, A. (2016). Teachers' attitudes toward the use of technology in social studies teaching. Research in Social Sciences and Technology, 1(1), 59-76. https://doi.org/10.46303/ressat.01.01.3

Law et.al. (2018). *Assessment tools for monitoring digital literacy - UNESCO*. Retrieved from https://gaml.uis.unesco.org/wp-content/uploads/sites/2/2018/12/4.4.2_02-Assessment-tools-for-monitoring-digital-literacy.pdf

Malik, M., Javed, S. (2021). Perceived stress among university students in Oman during COVID-19-induced e-learning. Middle East Curr Psychiatry 28, (1), 1-8.

Mantiri, O., Hibbert, G. K., & Jacobs, J. (2019). Digital literacy in ESL classroom. Universal Journal of Education Research 7(5), 1301-1305. Retrieved from http://www.hrpub.org DOI: 10.13189/ujer.2019.070515

Mardiani, F., Anis, M. Z. A., & Hermawan, M. D. (2021). Digital literacy in the transformation of historical learning in the time of covid-19. Jurnal Socius, 10(2), 1. https://doi.org/10.20527/jurnalsocius.v10i2.11198

Maulana, M. (2015). Definisi, Manfaat dan Elemen Penting Literasi Digital.

Mirza, T. I., & Mahboob, U. (2021). Polishing the Teaching of Affective Domain in Online Education. J Coll Physicians Surg Pak, 30(4), 485-486.

Mitchell, J. (2019, June 21). Affective representation and affective attitudes - synthese. SpringerLink. Retrieved from https://link.springer.com/article/10.1007/s11229-019-02294-7

Muhammad, A. & Kainat, A. (2020). Learning Amid The COVID-19 Pandemic: Students' Perspectives. Pakistan. Journal of Pedagogical Sociology and Psychology

Muhammad Mushfi El Iq Bali. (2020, December). The problems of application of online learning in the affective and psychomotor domains during the covid-19 pandemic. https://ejournal.uin-suka.ac.id/tarbiyah/index.php/jpai/article/view/3395. Retrieved from https://pdfs.semanticscholar.org/17b7/8d84a81c401302c0f3ac954c185c977113e5.pdf

Ramij, M., & Sultana, A. (2020). Preparedness of Online Classes in Developing Countries amid COVID-19 Outbreak: A Perspective from Bangladesh (SSRN scholarly paper ID 3638718). Social Science Research Network.

Recommendations on assessment tools for Monitoring Digital Literacy within UNESCO's Digital Literacy Global Framework. UNESCO Bangkok. (2018). Retrieved from https://bangkok.unesco.org/content/recommendations-assessment-tools-monitoring-digital-literacy-within-unesco%E2%80%99s-digital

Seymour-Walsh, A. E., Weber, A., Bell, A., & Smith, T. (2020). Teaching psychomotor skills online: exploring the implications of novel coronavirus on health professions education. Rural and Remote Health, 20(4), 6132-6132.

Shannon, S. (2017). (PDF) Digital Literacy, digital competence and research productivity of ... . Teacher Perceptions of Digital Literacy in an L2 Classroom. Retrieved from https://www.researchgate.net/publication/335300170_Digital_Literacy_Digital_Competence_and_Research_Productivity_of_Educators

Shatri, Z. G. (2020). Advantages and disadvantages of using information technology in learning process of students. Journal of Turkish Science Education. Retrieved from https://files.eric.ed.gov/fulltext/EJ1272770.pdf

Simonovic, B., Vione, K.C., Fido, D., Stupple, E. J. N., Martin, J. & Clarke, R. (2022). The impact of attitudes, beliefs, and cognitive reflection on the development of critical thinking skills in online students. Online Learning, 26(2), 254-274.

Tinmaz, H., Lee, Y.-T., Fanea-Ivanovici, M., & Baber, H. (2022, June. A systematic review on digital literacy - smart learning environments. SpringerOpen. Retrieved from https://doi.org/10.1186/s40561-022-00204-y

UNESCO. (2020). Education: From disruption to recovery. Retrieved from https://en.unesco.org/news/covid-19-learning-disruption-recovery-snapshot-unescos-work-education-2020

Van Deursen, A. J. A. M., Helsper, E. J., & Eynon, R. (2015). Development and validation of the Internet Skills Scale (ISS). Informa-tion, Communication & Society, 19(6), 804–823. https://doi.org/10.1080/1369118X.2015.1078834

Wempen, F. (2015). Digital Literacy for Dummies. Hoboken, NJ: John Wiley & Sons, Inc.

Widona, I. (2020). The effect of digital literacy on the ability of teachers to develop HOTS-based assessment. Journal of Physics: Conference Series. 1503. 012045. 10.1088/1742-6596/1503/1/012045.

Wijaya, T., Zhou, Y., Purnama, A. and Hermita, N. (2020). Indonesian students' learning attitude towards online learning during the coronavirus pandemic. Psychology, Evaluation, and Technology in Educational Research 3 (1), 2020, 17-25.

# APPENDICES A.

## LETTER OF PERMISSION TO CONDUCT STUDY

February 7, 2023
**FDR. DR. JOCELYN H. HUA, DFRIEdr**
College President Kolehiyo ng Pantukan
Juan A. Sarenas Campus, Kingking, Pantukan,
Davao de Oro

Dear Dr. Hua:

The undersigned are currently working on their research entitled **"DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN"** as a requirement for their degree of Bachelor of Technology and Livelihood Education Major in Home Economics.

In this regard, the researchers would like to request your approval to conduct the study. Also, the confidentiality of the data will be an utmost priority. Looking forward to your favorable response on this said request.

Sincerely yours,

**REALYN A. MELENDRES**
**WILMA MILAGROSA**
Researchers

Noted by:

**MR. SANNY DARAMAN, LPT, MAHEEd**
Research Adviser

**MR. MHARFE MICAROZ, MAED**
Program Head

**DR. LYNARD BOBBY V. ASIRIT, CESE**
Research Director

Approved by:

**FDR. DR. JOCELYN H. HUA, DFRIEdr**
College President

# APPENDICES B.

February 08, 2023

**FDR. DR. JOCELYN H. HUA, DFRIEDR**
**Thru: Ms. Rowena Lorejo, LPT, MPA**
Registrar In Charge
Kolehiyo Ng Pantukan
Juan A. Sarenas Campus, Kingking, Pantukan

Dear Ma'am,

Greetings!

We, the undersigned, are 3rd year BTLED Home Economics students enrolled in Kolehiyo Ng Pantukan. We are undergoing a research entitled **"DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN".**

In line with this, may we ask the total population of male and female student's class form first year to fourth year of BTLED students in this academic year 2022-2023.

You are one of the vital keys in the pursuance of this study, thus expecting your positive response on this request. Thank you and more power.

Respectfully yours,

*Melendres, Realyn A.*
*Milagrosa, Wilma*
*Researchers*

Noted:
**MR. SANNY M. DARAMAN, LPT, MAHEEd**
Research Adviser

**DR. LYNARD BOBBY ASIRIT, LPT, PhD, CESE**
Research Director

Approved by:
**FDR. DR. JOCELYN H. HUA, DFRIEDR**
College President

Leonel,
Pls. accomodate!
Thanks
M 'Weng

## APPENDICES C.

**KOLEHIYO NG PANTUKAN**
**COLLEGE OF TEACHER EDUCATION**
**BACHELOR OF TECHNOLOGY AND LIVELIHOOD EDUCATION major in HOME ECONOMICS**
Juan A. Sarenas Campus, Pantukan, Davao de Oro

### VALIDATION SHEET FOR RESEARCH QUESTIONNAIRE

| | |
|---|---|
| TITLE | **DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN** |

| | |
|---|---|
| Name of Evaluator: | **Eufrosina P. Mines, EdD** |
| Highest Degree: | **Doctor of Education** |
| ***Kindly check the appropriate box for your rating.*** | |
| Points Equivalent | **5 - Excellent 4 - Very Good 3 - Good 2 - Fair 1 - Poor** |

| ITEMS | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| **1 Clarity of Directions and Items** *The vocabulary level, language, structure, and conceptual level of questions suit the level of participants. The best directions and the items are written in a clear and understandable manner.* | / | | | | |
| **2. Presentation and Organization of Items** *The items are presented and organized in a logical manner.* | / | | | | |
| **3. Suitability of Items** *Each item is appropriate and represents the substance of the research. The questions are designed to determine the conditions, knowledge, perception and attitudes that are supposed to be measured.* | | / | | | |
| **4. Adequateness of Items per Category or Indicator** *The items represent the coverage of research adequately. The number of questions per area category is representative enough of all the questions needed for research.* | / | | | | |
| **5. Attainment of Purpose** *The instruments as well as a whole, fulfill the objectives for which it was constructed.* | / | | | | |
| **6. Objectivity** *Each item questions on* Signature *y one specific answer or measures only one behavior and no aspect of the questionnaire is a suggestion of the researcher.* | / | | | | |
| **7. Scale and Evaluation Rating Scale** *(for survey questionnaire only)* *The scale accepted is appropriate for the items* | / | | | | |
| **REMARKS:** Good work. Research instrument may be administered to your respondents. | | | | | |

**EUFROSINA P. MINES, EDD**
Signature over Printed Name

**KOLEHIYO NG PANTUKAN**
**COLLEGE OF TEACHER EDUCATION**
**BACHELOR OF TECHNOLOGY AND LIVELIHOOD EDUCATION major in HOME ECONOMICS**
Juan A. Sarenas Campus, Pantukan, Davao de Oro

## VALIDATION SHEET FOR RESEARCH QUESTIONNAIRE

| | |
|---|---|
| TITLE | **DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN** |

| | |
|---|---|
| Name of Evaluator: | **Lynard Bobby L. Asirit, PhD, CESE** |
| Highest Degree: | **PD StraMa** |
| ***Kindly check the appropriate box for your rating.*** | |
| Points Equivalent | **5 - Excellent 4 - Very Good 3 - Good 2 - Fair 1 - Poor** |

| ITEMS | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| **1. Clarity of Directions and Items** *The vocabulary level, language, structure, and conceptual level of questions suit the level of participants. The best directions and the items are written in a clear and understandable manner.* | | / | | | |
| **2. Presentation and Organization of Items** *The items are presented and organized in a logical manner.* | | / | | | |
| **3. Suitability of Items** *Each item is appropriate and represents the substance of the research. The questions are designed to determine the conditions, knowledge, perception and attitudes that are supposed to be measured.* | | / | | | |
| **4. Adequateness of Items per Category or Indicator** *The items represent the coverage of research adequately. The number of questions per area category is representative enough of all the questions needed for research.* | / | | | | |
| **5. Attainment of Purpose** *The instruments as well as a whole, fulfil the objectives for which it was constructed.* | | / | | | |
| **6. Objectivity** *Each item questions only one specific answer or measures only one behavior and no aspect of the questionnaire is a suggestion of the researcher.* | | / | | | |
| **7. Scale and Evaluation Rating Scale** *(for survey questionnaires only)* *The scale accepted is appropriate for the items* | / | | | | |
| **REMARKS: Approved!** | | | | | |

**LYNARD BOBBY L. ASIRIT, PhD, CESE**
Signature over Printed Name

**KOLEHIYO NG PANTUKAN**
**COLLEGE OF TEACHER EDUCATION**
**BACHELOR OF TECHNOLOGY AND LIVELIHOOD EDUCATION major in HOME ECONOMICS**
Juan A. Sarenas Campus, Pantukan, Davao de Oro

## VALIDATION SHEET FOR RESEARCH QUESTIONNAIRE

| | |
|---|---|
| TITLE | **DIGITAL LITERACY AND ONLINE LEARNING ATTITUDES OF BTLED STUDENTS IN KOLEHIYO NG PANTUKAN** |

| | |
|---|---|
| Name of Evaluator: | **ALBEB Q. TARAY, MBA** |
| Highest Degree: | **MBA** |
| ***Kindly check the appropriate box for your rating.*** | |
| Points Equivalent | **5 - Excellent 4 - Very Good 3 - Good 2 - Fair 1 - Poor** |

| ITEMS | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| **1. Clarity of Directions And Items** *The vocabulary level, language, structure, and conceptual level of questions suit the level of participants. The best directions and the items are written in a clear and understandable manner.* | | / | | | |
| **2. Presentation and Organization of Items** *The items are presented and organized in a logical manner.* | | / | | | |
| **3. Suitability of Items** *Each item is appropriate and represents the substance of the research. The questions are designed to determine the conditions, knowledge, perception and attitudes that are supposed to be measured.* | | / | | | |
| **4. Adequateness of Items per Category or Indicator** *The items represent the coverage of research adequately. The number of questions per area category is representative enough of all the questions needed for research.* | | / | | | |
| **5. Attainment of Purpose** *The instruments as well as a whole, fulfil the objectives for which it was constructed.* | | / | | | |
| **6. Objectivity** *Each item questions only one specific answer or measures only one behavior and no aspect of the questionnaire is a suggestion of the researcher.* | | / | | | |
| **7. Scale and Evaluation Rating Scale** *(for survey questionnaires only)* *The scale accepted is appropriate for the items* | | / | | | |
| **REMARKS: APPROVED.** | | | | | |

**ALBEB Q. TARAY, MBA**
Signature over Printed Name

**APPENDICES D.**

**KOLEHIYO NG PANTUKAN**
**COLLEGE OF TEACHER EDUCATION**
**BACHELOR OF TECHNOLOGY AND LIVELIHOOD EDUCATION major in HOME ECONOMICS**
Juan A. Sarenas Campus, Pantukan, Davao de Oro

## OVERALL VALIDATION TALLY SHEET

| Validator | Score |
|---|---|
| 1 | 34 |
| 2 | 30 |
| 3 | 28 |
| Average | 92 |
| **Remarks** | **APPROVED** |



Verified:

**LYNARD BOBBY L. ASIRIT, PhD,CESE**
VP for Research

## APPENDICES E.

## RELIABILITY TEST RESULTS

QUAN DATA | reliability test | QUALI DATA

| | A | B | C | D |
|---|---|---|---|---|
| 1 | | | | |
| 2 | Scale Reliability Statistics | | | |
| 3 | | Mean | SD | Cronbach's α |
| 4 | scale | 3.97 | 0.387 | 0.884 |
| 5 | *Note.* items 'O' and 'AE' correlate negatively with the total | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | The jamovi project (2022). jamovi. (Version 2.3) [Computer Software]. 1 | | | |
| 11 | | | | |
| 12 | R Core Team (2021). R: A Language and environment for statistical com | | | |
| 13 | | | | |
| 14 | Revelle, W. (2019). psych: Procedures for Psychological, Psychometric, | | | |
| 15 | | | | |
| 16 | | | | |
| 17 | | | | |
| 18 | | | | |
| 19 | | | | |
| 20 | | | | |
| 21 | | | | |
| 22 | | | | |
| 23 | | | | |
| 24 | | | | |
| 25 | | | | |
| 26 | | | | |
| 27 | | | | |
| 28 | | | | |
| 29 | | | | |
| 30 | | | | |
| 31 | | | | |
| 32 | | | | |
| 33 | | | | |
| 34 | | | | |
| 35 | | | | |
| 36 | | | | |
| 37 | | | | |
| 38 | | | | |

## APPENDICES F.

## RESEARCH INSTRUMENT

Name: _____ Date: _____

Year & Block: _____

**Instruction:** Please answer each question using a 5-point scale, to best reflect what you actually do or have done as a student. Then formation can be used to identify areas and potential change so be as open as you can.

| DIGITAL LITERACY | | | | | |
|---|---|---|---|---|---|
| **UNDERSTANDING DIGITAL PRACTICES** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |
| 1. I know what categories of users I can expect to find online. | | | | | |
| 2. I use online tools and websites to find and record information online. | | | | | |
| 3. I choose the right tool to find, use, or create information. | | | | | |
| 4. I find a person online, for example an expert in my discipline, and establish their contact details. | | | | | |
| 5. I present myself online using my digital identity. | | | | | |
| **FINDING INFORMATION** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |

| | | | | | |
|---|---|---|---|---|---|
| 1. I am aware of the information available on the internet. | | | | | |
| 2. I use social networks as a source of information. | | | | | |
| 3. I use advanced search options to limit and refine my search. | | | | | |
| 4. I swiftly browse or skim a web page to find the most important information. | | | | | |
| 5. I am aware of when to stop or modify my search approach. | | | | | |
| **USING INFORMATION** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |
| 1. I assess whether an online resource (e.g. web page, blog, wiki, video, podcast, academic journal article) or person is credible and trustworthy. | | | | | |
| 2. I use other people's work or found online without committing plagiarism. | | | | | |
| 3. I keep a record of the relevant details of information found online. | | | | | |
| 4. I use information in different media, for example, podcasts or videos. | | | | | |
| 5. I use social bookmarking to organize and share information. | | | | | |

| **CREATING INFORMATION** | | | | | |
|---|---|---|---|---|---|
| | **5** | **4** | **3** | **2** | **1** |
| 1. I communicate with others online (forums, blogs, social networking sites, audio, video, etc.) | | | | | |
| 2. I add comments to blogs, forums or web pages, observing netiquette and appropriate social conventions for online communications. | | | | | |
| 3. I work with others online to create a shared document or presentation. | | | | | |
| 4. I write online for a variety of audiences, such as a webpage or blog article for my personal use, for my fellow students to read, or for anybody in the world to read. | | | | | |
| 5. I use media-capture devices, e.g. recording and editing a podcast or video. | | | | | |

| ONLINE LEARNING ATTITUDES | | | | | |
|---|---|---|---|---|---|
| **COGNITIVE ATTITUDES** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |
| 1. I find it difficult in focusing my mind or paying attention to requirements to be completed due to some environmental distractions at home. | | | | | |
| 2. My mind is preoccupied or loaded with activities to think about and finish. | | | | | |
| 3. I am encouraged to direct my responsibility or become independent of my learning. | | | | | |
| 4. I am free to learn progress through the topics/lessons at my pace of learning. | | | | | |
| 5. I feel mentally blocked. | | | | | |
| **AFFECTIVE ATTITUDES** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |
| 1. It is difficult for me to foster reflective, abstract, and creative thinking. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 2. My assessment of the readiness of senses to accumulate learning is limited. | | | | | |
| 3. I am confident enough in handling my work. | | | | | |
| 4. I become quickly irritated or upset. | | | | | |
| 5. I have developed self-discipline. | | | | | |
| **PSYCHOMOTOR ATTITUDES** | | | | | |
| | **5** | **4** | **3** | **2** | **1** |
| 1. Online learning eliminates me in actual practice and motor coordination. | | | | | |
| 2. Manipulative skills/abilities have limited use/relevance in online teaching and learning due to the needed application for counter checking. | | | | | |
| 3. Actual usage of tools and equipment is eliminated in online learning. | | | | | |
| 4. Outcomes of skills and habits cannot be measured immediately as in actual practice. | | | | | |
| 5. Limited explanation on how to relate symbols with meaning. | | | | | |

# APPENDICES G.

## RAW DATA

QUAN DATA | analysis | QUALI DATA

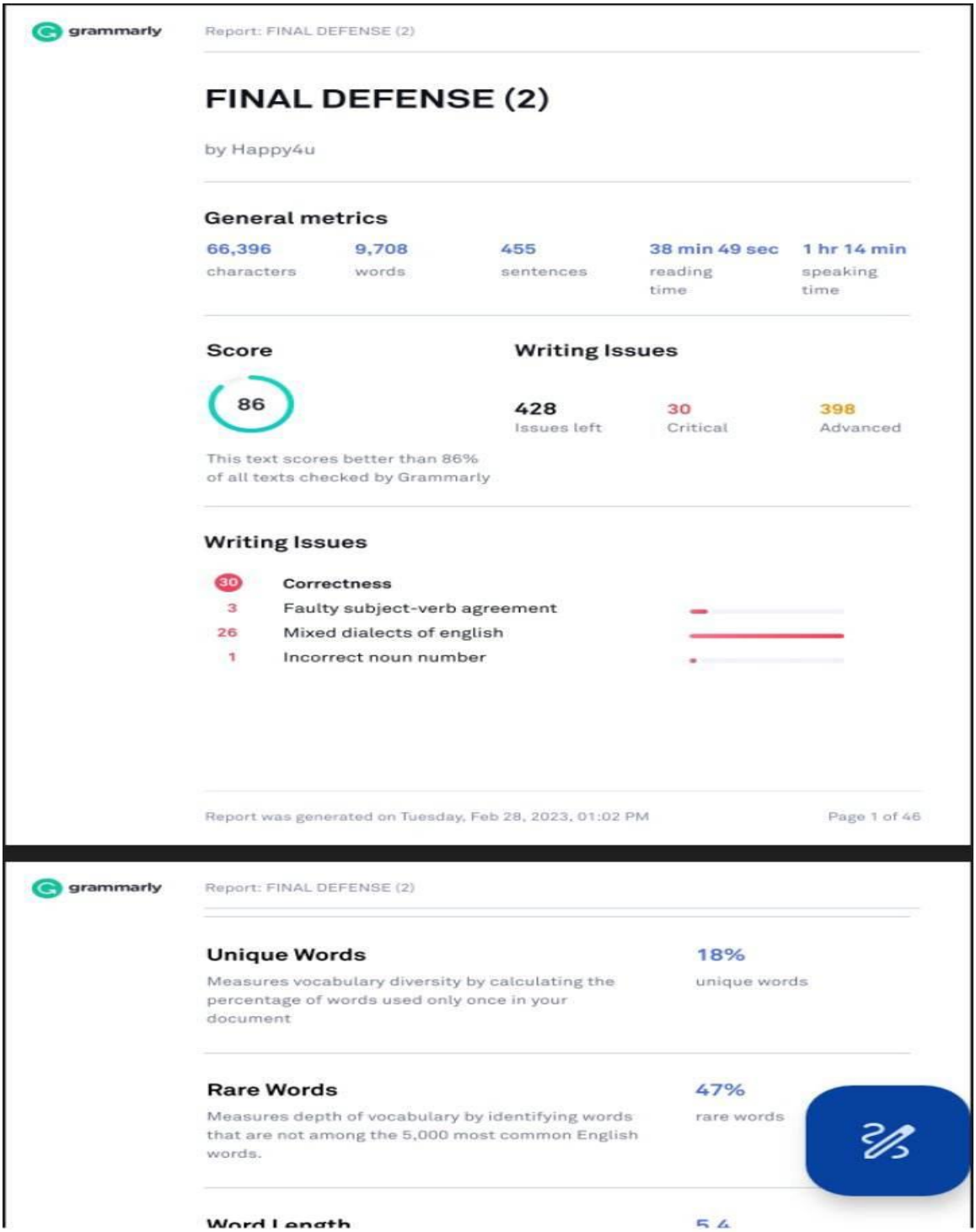
| | M | N | O | P | Q | R | S | T | U |
|---|---|---|---|---|---|---|---|---|---|
| 4 | | SOP 1 | 11 | Descriptives | | | | | |
| 5 | | | | | N | Mean | SD | | |
| 6 | | | | IV 1.1 | 249 | 4.16 | 0.865 | | |
| 7 | | | | IV 1.2 | 249 | 4.23 | 0.819 | | |
| 8 | | | | IV 1.3 | 249 | 4.27 | 0.774 | | |
| 9 | | | | IV 1.4 | 249 | 4.04 | 0.812 | | |
| 10 | | | | IV 1.5 | 249 | 4.00 | 0.914 | | |
| 11 | | | | IV 1 | 249 | 4.14 | 0.619 | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | 12 | Descriptives | | | | | |
| 15 | | | | | N | Mean | SD | | |
| 16 | | | | IV 2.1 | 249 | 4.25 | 0.859 | | |
| 17 | | | | IV 2.2 | 249 | 4.27 | 0.878 | | |
| 18 | | | | IV 2.3 | 249 | 4.16 | 0.807 | | |
| 19 | | | | IV 2.4 | 249 | 4.16 | 0.832 | | |
| 20 | | | | IV 2.5 | 249 | 4.18 | 0.838 | | |
| 21 | | | | IV 2 | 249 | 4.20 | 0.696 | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | 13 | Descriptives | | | | | |
| 25 | | | | | N | Mean | SD | | |
| 26 | | | | IV 3.1 | 249 | 4.15 | 0.843 | | |
| 27 | | | | IV 3.2 | 249 | 3.85 | 1.073 | | |
| 28 | | | | IV 3.3 | 249 | 4.08 | 0.919 | | |
| 29 | | | | IV 3.4 | 249 | 4.02 | 0.965 | | |
| 30 | | | | IV 3.5 | 249 | 3.97 | 0.913 | | |
| 31 | | | | IV 3 | 249 | 4.01 | 0.764 | | |
| 32 | | | | | | | | | |
| 33 | | | | | | | | | |
| 34 | | | 14 | Descriptives | | | | | |
| 35 | | | | | N | Mean | SD | | |
| 36 | | | | IV 4.1 | 249 | 4.13 | 0.877 | | |
| 37 | | | | IV 4.2 | 249 | 3.88 | 0.949 | | |
| 38 | | | | IV 4.3 | 249 | 3.93 | 0.915 | | |
| 39 | | | | IV 4.4 | 249 | 3.87 | 1.009 | | |
| 40 | | | | IV 4.5 | 249 | 4.04 | 0.973 | | |
| 41 | | | | IV 4 | 249 | 3.97 | 0.769 | | |
| 42 | | | | | | | | | |
| 43 | | | | | | | | | |
| 44 | | | OVERALL | Descriptives | | | | | |
| 45 | | | | | N | Mean | SD | | |
| 46 | | | | IV 1 | 249 | 4.14 | 0.619 | | |
| 47 | | | | IV 2 | 249 | 4.20 | 0.696 | | |
| 48 | | | | IV 3 | 249 | 4.01 | 0.764 | | |
| 49 | | | | IV 4 | 249 | 3.97 | 0.769 | | |
| 50 | | | | IV | 249 | 4.08 | 0.635 | | |
| 51 | | | | | | | | | |
| 52 | | | | | | | | | |
| 53 | | SOP 2 | 21 | Descriptives | | | | | |
| 54 | | | | | N | Mean | SD | | |
| 55 | | | | DV 1.1 | 249 | 3.90 | 0.940 | | |
| 56 | | | | DV 1.2 | 249 | 3.90 | 0.869 | | |
| 57 | | | | DV 1.3 | 249 | 4.18 | 0.812 | | |
| 58 | | | | DV 1.4 | 249 | 4.17 | 0.835 | | |
| 59 | | | | DV 1.5 | 249 | 3.58 | 0.973 | | |
| 60 | | | | DV 1 | 249 | 3.94 | 0.663 | | |
| 61 | | | | | | | | | |
| 62 | | | | | | | | | |
| 63 | | | 22 | Descriptives | | | | | |
| 64 | | | | | N | Mean | SD | | |
| 65 | | | | DV 2.1 | 249 | 3.83 | 0.966 | | |
| 66 | | | | DV 2.2 | 249 | 3.84 | 0.980 | | |
| 67 | | | | DV 2.3 | 249 | 4.12 | 0.881 | | |
| 68 | | | | DV 2.4 | 249 | 3.60 | 1.058 | | |
| 69 | | | | DV 2.5 | 249 | 4.22 | 0.849 | | |
| 70 | | | | DV 2 | 249 | 3.92 | 0.705 | | |
| 71 | | | | | | | | | |
| 72 | | | | | | | | | |
| 73 | | | 23 | Descriptives | | | | | |
| 74 | | | | | N | Mean | SD | | |
| 75 | | | | DV 3.1 | 249 | 4.03 | 0.879 | | |
| 76 | | | | DV 3.2 | 249 | 4.00 | 0.868 | | |
| 77 | | | | DV 3.3 | 249 | 3.94 | 0.892 | | |
| 78 | | | | DV 3.4 | 249 | 3.90 | 0.904 | | |
| 79 | | | | DV 3.5 | 249 | 3.79 | 0.961 | | |
| 80 | | | | DV 3 | 249 | 3.93 | 0.743 | | |
| 81 | | | | | | | | | |
| 82 | | | | | | | | | |
| 83 | | project or | OVERALL | Descriptives | | | | | |
| 84 | | | | | N | Mean | SD | | |
| 85 | | | | DV 1 | 249 | 3.94 | 0.663 | | |
| 86 | | | | DV 2 | 249 | 3.92 | 0.705 | | |
| 87 | | | | DV 3 | 249 | 3.93 | 0.743 | | |
| 88 | | | | DV | 249 | 3.93 | 0.636 | | |
| 89 | | | | | | | | | |
| 90 | | | | | | | | | |
| 91 | P 3 | | | Correlation Matrix | | | | | |
| 92 | | | | | | IV | DV | | |
| 93 | | | | IV | Pearson's r | — | | | |
| 94 | | | | | p-value | — | | | |
| 95 | | | | | N | — | | | |
| 96 | | | | DV | Pearson's r | 0.675 | — | | |
| 97 | | | | | p-value | < .001 | — | | |
| 98 | | | | | N | 249 | — | | |
| 99 | | | | | | | | | |
| 100 | | | | | | | | | |
| 101 | | | | COEFFICIENT OF DETERMINATION | | | | | |
| 102 | | | | | | | | | |
| 103 | | | | | r= | 0.675 | | | |
| 104 | | | | | r^2= | 0.456 | | | |
| 105 | | | | | | | | | |
| 106 | | | | | | | | | |

# APPENDICES H.

## EVIDENCES OF THE DATA GATHERING

# APPENDICES I.

## GRAMMAR RATE RESULT



grammarly

Report: FINAL DEFENSE (2)

FINAL DEFENSE (2)

by Happy4u

General metrics

| 66,396 | 9,708 | 455 | 38 min 49 sec | 1 hr 14 min |
|---|---|---|---|---|
| characters | words | sentences | reading time | speaking time |

Score

86

This text scores better than 86% of all texts checked by Grammarly

Writing Issues

428 Issues left | 30 Critical | 398 Advanced

Writing Issues

| | |
|---|---|
| 30 | Correctness |
| 3 | Faulty subject-verb agreement |
| 26 | Mixed dialects of english |
| 1 | Incorrect noun number |

Report was generated on Tuesday, Feb 28, 2023, 01:02 PM Page 1 of 46

grammarly

Report: FINAL DEFENSE (2)

Unique Words

Measures vocabulary diversity by calculating the percentage of words used only once in your document

18% unique words

Rare Words

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

47% rare words

Word Length 5.4

## APPENDICES J.

## PLAGIARISM TEST RESULT

M652VQ5Q8E - Melendres - BTLED-HE 3 - Undergraduate Thesis

ORIGINALITY REPORT

| 20% | 11% | 9% | 8% |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | media.neliti.com<br>Internet Source | 2% |
| 2 | oapub.org<br>Internet Source | 1% |
| 3 | openaccess.oajour.info<br>Internet Source | 1% |
| 4 | Fauzan Fauzan, Fatkhul Arifin, Maulana Arafat Lubis, Fery Muhamad Firdaus. "Lecturer's digital literacy ability in the pandemic", Cypriot Journal of Educational Sciences, 2022<br>Publication | 1% |
| 5 | Submitted to American College of Education<br>Student Paper | 1% |
| 6 | ijern.com<br>Internet Source | 1% |
| 7 | Submitted to Intercollege<br>Student Paper | 1% |
| 8 | Bora Ly, Romny Ly, Sunleap Hor. "Zoom classrooms and adoption behavior among Cambodian students", Computers in Human Behavior Reports, 2023<br>Publication | 1% |
| 9 | www.coursehero.com<br>Internet Source | 1% |
| 10 | prr.hec.gov.pk<br>Internet Source | 1% |
| 11 | www.ncbi.nlm.nih.gov<br>Internet Source | 1% |
| 12 | Submitted to Southville International School and Colleges<br>Student Paper | 1% |
| 13 | jozilla.net<br>Internet Source | <1% |

# CURRICULUM VITAE

**REALYN A. MELENDRES**
09074288825
realyn_melendres@knp.edu.ph

## PERSONAL DATA

| | |
|---|---|
| Age: | 21 years old |
| Date of Birth: | July 18, 2001 |
| Gender: | Female |
| Civil Status: | Single |
| Address: | Prk. 2, Anislagan, Maco, Davao de Oro |
| Religion: | Roman Catholic |

## EDUCATIONAL BACKGROUND

| | |
|---|---|
| Elementary: | Anislagan Elementary School<br>Prk. 3, Anislagan, Maco, Davao de Oro<br>2013-2014 |
| Secondary: | Atty. Orlando S. Rimando National High School<br>Binuangan, Maco, Davao de Oro<br>2017-2018 |
| Vocational: | Atty. Orlando S. Rimando National High School<br>Binuangan, Maco, Davao de Oro<br>2019-2020 |
| Tertiary: | Kolehiyo ng Pantukan<br>Juan A. Sarenas Campus, Pantukan, Davao de Oro |
| Course: | Bachelor of Technology and Livelihood Education major in Home Economics (Third Year Level)<br>Ongoing |

**WILMA MILAGROSA**
09090463693
wilma_milagrosa@knp.edu.ph

## PERSONAL DATA

| | |
|---|---|
| Age: | 22 years old |
| Date of Birth: | July 19, 2000 |
| Gender: | Female |
| Civil Status: | Single |
| Address: | Purok 6, Lower Lahi, Magnaga, Pantukan, Davao de Oro |
| Religion: | Praise Christian Ministry |

## EDUCATIONAL BACKGROUND

| | |
|---|---|
| Elementary: | Magnaga Elementary School<br>Magnaga, Pantukan, Davao de Oro<br>2013-2014 |
| Secondary: | Magnaga National High School<br>Magnaga, Pantukan, Davao de Oro<br>2017-2018 |
| Vocational: | Magnaga Senior High School<br>Magnaga, Pantukan, Davao de Oro<br>2019-2020 |
| Tertiary: | Kolehiyo ng Pantukan<br>Juan A. Sarenas Campus, Pantukan, Davao de Oro |
| Course: | Bachelor of Technology and Livelihood Education major in Home Economics (Third Year Level)<br>Ongoing |