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SOCIAL NETWORKING USE, DIGITAL LITERACY AND ENGAGEMENT OF SENIOR HIGH SCHOOL STUDENTS

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ABSTRACT

This study determined the influence of social networking use and digital literacy towards the engagement of senior high school students. The investigation utilized adapted survey questionnaires validated by experts and answered by senior high school students from the selected basic education institutions in Davao City. The gathered data were analyzed through mean, standard deviation, Pearson product-moment correlation, and multiple regression. The result revealed that social networking use and digital literacy were high, while student engagement was very high. Further, the result showed a significant relationship between social networking use, digital literacy, and students' engagement. This means that means that students who are more adept in using social networking sites and exhibit higher digital literacy are likely to be more engaged in their academic activities. Based on the findings, an information technology intervention tool was developed to improve the students' engagement.

KEYWORDS: *IT education, social networking, digital literacy, students' engagement, descriptive-correlation, Davao City, Philippines*

INTRODUCTION

Student engagement is a widespread issue in today's education, encompassing a variety of factors that hinder students' active participation and commitment to their academic interests. Also, Siregar (2022) highlighted that student engagement in the classroom serves a valuable function in learning activities and is necessary to fulfill the educational mission. A study led by Sabbott (2016) highlighted that student engagement in the field of education refers to the level of attention, interest, confidence, and passion that students exhibit when studying or being taught, as well as the level of drive they demonstrate to acquire knowledge and improve in their education. However, in a study by Urias (2022), the author cited that many teachers face difficulties due to the absence of student engagement. In research conducted by Castillon and Limpot (2022) emphasized that a significant percentage of students, ranging from 25 to 66 percent, are perceived as nonparticipants in class, with their academic and social achievements hampered by a lack of engagement, motivation, and indifference.

In the United States of America, a survey was conducted by EdWeek Research Center (2022) for the 630 teachers across the country for its December 2022 report and found that 68 percent of respondents said that the largest issue confronting education now is low student participation. Also, the Promethean World (2023) cited that disengaged students in the classroom may struggle to focus which will impact their ability to progress in their learning.

Moreover, in a survey of the State Department of Education of Idaho, USA, by Edge (2021) indicated that only 45.7 percent of students reported being engaged with school during a 2021 survey however it went down from 52.6 percent in 2019 and 65 percent the year before that. As stated in the study of Wang and Eccles (2012), student involvement is a major indicator of academic success where higher levels of engagement either behavioral or cognitive aspect are linked with better grades and a desire to seek further education. A research study of Wang and Degol (2014) at the University of Pittsburgh's School of Education, cited that a few strategies have boosted student involvement such as randomized control trials of positive behavioral support programs implemented throughout the entire school have improved student engagement and success while reducing discipline referrals and suspensions.

In addition, the State of the Student 2022 poll performed in North America by academic publishing company Wiley revealed that 38 percent of graduate students and 55 percent of undergraduate students staying engaged in their classes challenging. Only 44 percent of the 12,394 higher education students in Finland's universities and polytechnics who participated in the 2017 study met the criteria for engagement, based on the study's large and representative sample. Furthermore, the study of Goss and Sonnemann (2017) showed that 40 percent of Australian young people are disengaged from studying.

In a similar context, a study conducted by Uy (2014) in the Philippines among 859 Bachelor of Science in Accountancy students found that highly technical courses, such as the Bachelor of Science in Accountancy, had the lowest number and percentage of engaged students. Also, another remote learning study was conducted by USAID (2021) in the Philippines, the study highlighted that some school heads and teachers noticed that learners became less interested and less engaged over time.
Furthermore, Enerio (2021) conducted a study in Tangub City, Philippines specifically in Northwestern Mindanao State College of Science and Technology asserted that low student engagement levels contributed to the national

licensure examination data from 2014 to 2018 which exhibits below-average rates with a graduation rate of 17.66 percent and a board exam passing rate of 36.28 percent, prompting the research to identify and address factors influencing engagement for improved outcomes. The author suggested that the College invest in a variety of support services to create a welcoming learning environment, prioritize faculty training to prepare them for teaching, and implement student engagement activities.

Correspondingly, a pivotal discovery from the research of Ivala and Gachago (2012) indicates that when students embrace social networking use such as blogs and Facebook groups as educational tools, it bolsters their participation in academic learning activities both on and off campus. In a similar manner, a study conducted by Gulzar et al. (2021) among 267 graduate and undergraduate students enrolled at various universities in the Chinese province of Anhui's Hefei revealed that use of social networking platforms of the students is positively related to their ability to be creative and willingness to engage academically via intrinsic motivation. Also, Rasheed et al. (2020) discovered that social networking use of the students is related to their originality and involvement in research training through their behavior in knowledge-sharing. Likewise, a research conducted by Siregar (2022) on students at Medan State University revealed that digital literacy had a substantial impact on student involvement recommended that stakeholders give students with digital literacy training to boost student participation. In a similar context, Jaya and Nurqamarani (2023) claims that digital literacy and academic self-efficacy play an important role in fostering student engagement in hybrid learning, emphasizing that students' ability to use digital learning resources will support active participation in the learning process.

The current study links public senior high school student's social networking use and digital literacy to student's engagement. Further, this is the first study that utilizes the said variables in one study in the Davao Region specific to Davao City. Thus, the researcher finds it relevant and urgent to conduct this study having social networking use and digital literacy as a predictor of student's engagement because this will deepen the understanding of the low engagement of the students in school.

Also, the relevant information that will be gathered from this investigation may be used as the baseline data for the school administrators, guidance counselors, teachers, and other members of the school community to plan programs that may help in developing student's discernment and improve engagement of the public senior high school students. Furthermore, the study result may provide research-based quantitative inputs in crafting an information technology intervention tool regarding the independent variables explored to improve the engagement of the public senior high school students. Finally, filling this research gap can lead to a better understanding of the intricate links between social networking use, digital literacy, and student engagement, allowing for the development of more effective and targeted educational approaches for public senior high school students. The findings of this study may be of interest to other researchers as they could provide valuable knowledge to their research. This study will also be a great help to the schools, particularly to the teachers. Their administrators may benefit from research-based data on social networking use and digital literacy as predictors of students' engagement.

The findings will be presented to the participating public senior high schools in Davao City after completing this study. Furthermore, to ensure that the research findings inform practice and thus maximize the benefit to the schools involved, they will be given a link of the published study. This study would also be available and open for access so that it can be used as a reference for other researchers and organizations dealing with the same problem. The researcher also plans to present the results of the study in a school learning action cell, cluster-level research forums and have it published in refereed research journal.

STATEMENT OF THE PROBLEM

This study aimed to determine the relationship between social networking use, digital literacy, and engagement of students. Furthermore, it also determined whether there exists a significant relationship between social networking use and digital literacy to student's engagement. Specifically, it sought to answer the following questions:

1. What is the level of the senior high school students' social networking use in terms of:
1.1 academic;
1.2 socialization;
1.3 entertainment; and
1.4 informativeness?

2. What is the level of the senior high school student's digital literacy in terms of:
2.1 communication;
2.2 copyright;
2.3 critical thinking;
2.4 character;
2.5 citizenship;
2.6 curation;
2.7 connectedness;
2.8 creativity; and
2.9 collaboration?

3. What is the level of senior high school student's engagement in terms of:
3.1 affective – liking for learning
3.2 affective – liking for school;
3.3 behavior – effort and persistence;
3.4 behavior – extracurricular; and
3.5 cognitive?

4. Is there a significant relationship between
4.1 social networking use and students' engagement; and
4.2 digital literacy and students' engagement?
5. Which among the domains of social networking use and digital literacy significantly predict senior high school students' engagement?
6. What information technology intervention plan or tool can be proposed to improve students' engagement?

LITERATURE REVIEW

Social Networking Use

Social networks, integral to contemporary internet use, encompass websites and applications facilitating connections, communication, information sharing, and relationship formation among users and organizations, enabling people to engage with individuals in their vicinity, family, friends, and those sharing similar interests (Wright & Yasar, 2022). The study of Kenton (2023) shows that social networking presents a significant opportunity for marketers, with Facebook being the most prominent and widely used platform, with 2 billion daily users as of February 1, 2023, while other popular platforms in the United States include Instagram, X, WhatsApp, TikTok, and Pinterest. Also, Gupta and Bashir (2018) defined social networking use as the online space in which students connect, share, communicate, establish, or maintain connections with others for academic, entertainment, and socialization purposes. Additionally, Rasheed et al. (2020) highlighted that social networking use is no longer restricted to a specific section of society; it has permeated all aspects of people's lives, including but not limited to students.

Further, Gupta and Bashir (2018) emphasized that the interactive and collaborative nature of social networking holds enormous capability for education, prompting universities and colleges to adopt and recognize its powerful implications for use in educational settings. Furthermore, the author stated that there are numerous benefits to using social networking websites for educational purposes, including improved student learning opportunities, real-time communication outside of the classroom, collaborative opportunities, and increased creativity. In fact, Mäntymäki and Riemer (2016) stated that the use of social networking sites in education is rapidly increasing due to their potential to increase users' knowledge through a facilitated knowledge-sharing environment, particularly for student collaboration. Furthermore, a study of Dragseth (2019) indicates that it provides various classroom opportunities, such as increased engagement of the students, the development of students' peer and professional networks.

Digital Literacy

Digital technology is now an integral part of education and is changing the way students learn today (Benson & Kolsaker, 2015). Likewise, Putri (2004) highlighted in this study that digital literacy is more than just the ability to operate a digital device or use software; it also includes a wide range of complex cognitive, motor, emotional and sociological skills that users need to effectively function in digital settings.

Digitally literate students can function well and creatively in a technology-enabled environment in all facets of their lives, and this is made possible by higher education's thoughtful adoption of digital learning modes (Siregar, 2021). In a study conducted by Jaya (2023), the author emphasized that digital literacy and academic self-confidence have an indirect influence on academic achievement by enhancing students' active social and emotional engagement in both asynchronous and synchronous learning formats. In fact, Erstad (2006) noted that digital literacy is now designated as a fundamental competency within Norway's updated national school curriculum.

Further, the New Media Consortium (2016) stated that digital literacy initiatives can increase students' enthusiasm for learning, particularly as their growing fluency allows them to form innate influences with others and provides them with a new lens through which to assess the world around them thoroughly.

A study conducted by Adobe (2016) revealed that 76 percent of students and 75percent of teachers wish more emphasis on creativity in the classroom.

Communication. The first indicator of digital literacy in this study is communication, it is defined as a key feature in digital literacy (Jisc, 2016). An Information Technology consulting firm, Yottabye (2023) stated that enhancing digital literacy improves communication by allowing people to engage with one another through a variety of channels, such as email, instant messaging, video conferencing, and social networking sites. Also, Western Sydney University (2024) noted that digital literacy includes effective communication skills, emphasizing that in virtual settings, articulating ideas clearly, asking pertinent questions, maintaining respect, and fostering trust are just as important as in face-to-face communication.

Meanwhile, a study of Abbas et al. (2019) in Pakistan conducted with 800 students from ten universities discovered that digital literacy had a substantial impact on students' communication skills. Furthermore, Ustundag et al. (2017) claimed that individuals who are digitally literate have the technical knowledge and abilities needed to use, access, and analyze technological information to generate digital information, as well as communicate, socialize, and learn via online networks. Another study conducted by Thapliya (2023) investigates the impact of digital literacy on communication, arguing that digital literacy encompasses more than just technological proficiency and requires a deeper understanding of its implications for communication.

Students' Engagement

The engagement of the students plays a critical role in learning experiences of the students. As described by Trowler (2020), student engagement is the investment of time, effort, and resources by both students and institutions to enhance the student experience, improve learning outcomes, and contribute to institutional performance and reputation. Similarly, Barkley and Major (2020) describe student engagement as the mental state students experience while learning, where feelings and thoughts intersect. The University of Colorado Boulder (2023) emphasized that engaged students actively seek to understand the material by putting forth intellectual effort, confronting challenging concepts, and taking responsibility for their own learning with motivation and enthusiasm.

Furthermore, Afzal and Crawford (2022) emphasize that engagement of the students is an essential element of learning experiences and academic success. Several studies have identified a connection between student engagement and outcomes such as grades, satisfaction, critical thinking (Nelson Laird et al., 2014), and degree attainment (Flynn, 2014). Also, Lu and Wen (2023) found that students who were more actively engaged showed the greatest improvement in both cognitive and non-cognitive abilities, with the impact of engagement varying based on institution type and subject area. Adding more, Delfino (2019) similarly found that student engagement was positively correlated with academic performance, recommending that teachers, schools, and parents work together to create more opportunities for students to maximize their engagement.

Additionally, Rimm-Kaufman and Hulleman (2016) cited that disengaged students, may act out to get attention or express their frustration with the classroom environment. Also, Staikopoulos et al., (2015) reported that low student participation affects course dropout rates, material retention, and final grades.

In the Philippines, a UNICEF-funded study conducted by Orbeta identified a lack of personal interest as the main reason high school students do not attend school. Further, Gonzales et al., (2015) cited that the lack of interest often begins in elementary school and decreases as students reach higher levels of education, posing challenges for secondary educators.

There are three types of student engagement—behavioral, cognitive, and affective—which, although distinct, are interconnected (Fredericks, Blumenfeld, & Paris, 2004). Five observable variables in student engagement include affective - liking for learning, affective - liking for school, behavioral - effort and persistence, behavioral - extracurricular, and cognitive engagement.

Social Networking Use and Students' Engagement

As Abdurahman et al. (2019) noted, the use and integration of social networking platform in educational settings has shown a major effect on student engagement. Also, Zulkanain et al. (2018) emphasized that Facebook, Twitter, and WhatsApp are the social networking site types most frequently used for learning which facilitate social connections and cooperative learning. Similarly, Gulzar et al. (2021), investigates 267 graduate and undergraduate students enrolled in different universities in the Chinese province of Hefei, Anhui, and discovered that students' use of social networking sites has a positive correlation with their creativity and academic engagement due to intrinsic motivation. Additionally, Rasheed et al. (2020) found that through knowledge-sharing behavior, students' use of social networking is related to their creativity and engagement in graduate research training. Further, Hu et al. (2017) researchers have argued that using social networking improves students' cognitive and creative abilities. Also, the study of Dong et al. (2022) examines the influence of social networking use on learning engagement among international students in the United States where the result discovered that using social networking to collaborate with learning counterparts or materials directly increases learning engagement. In another study, Vincent (2023) investigates the role that social networks play in fostering student engagement, which leads to persistence, and encourages staff to do everything they can to foster productive networks within their spheres of influence, because, simply put, student engagement cannot be left to chance.

Meanwhile, Renu (2023) stated in his study that student engagement mediates the negative relationship between social networking site use and academic performance among college students, as demonstrated by an empirical test of the networking model using the process macro. Likewise, Dragseth (2019) noted that social networking offers several opportunities in the classroom that include increased student engagement, building students' professional and peer networks, and developing their social networking skills. The study discusses how platforms such as Facebook and Twitter can help students engage and build peer and professional networks.

Digital Literacy and Students' Engagement

Student engagement relies heavily on digital literacy (Jha et al., 2022). A study of Bećirović (2023) discovered that students with good digital literacy skills are more likely to engage in their studies. Also, Shuhidan et al. (2022)

asserted that the incorporation of educational technologies into curriculum design and delivery can improve student engagement in higher education.

Further, the study of Siregar (2022) on the students at Medan State University discovered that digital literacy has a substantial impact on student engagement and the findings suggest that the stakeholders should provide students with digital literacy training to boost student engagement. Likewise, the study of Jaya and Nurqamarani (2023) highlighted that digital literacy and academic self-efficacy, are crucial for encouraging student engagement in hybrid learning. The authors emphasized that students' use of digital learning resources will encourage active participation in the learning process.

Furthermore, Adobe (2016) conducted a Gen Z creativity study, the result revealed that 75 percent of teachers and 76 percent of students wish there was more emphasis on creativity in the classroom setting to improve engagement. In this view, the study of New Networking Consortium (2019) cited that creative digital literacy initiatives have the potential to increase student excitement about learning, especially as their growing fluency enables deeper connections with others and equips them with a new lens to critically evaluate the world around them. Also, Bergdahl et al. (2019) discovered significant correlations between students' digital skills and engagement in technology-enhanced learning in a similar context, demonstrating that having high levels of digital skills is related to engagement in technology-enhanced learning. As a result, the study discovered variables reflecting both engagement and disengagement in technology-enhanced learning that predict student performance as measured by final grades, implying that understanding and supporting students who learn with technologies requires a broader understanding of the factors influencing engagement and disengagement.

Similarly, Shuhidan et al. (2022) cited the impact of digital literacy on student learning engagement was investigated in secondary school students in Malaysia, and it was discovered that students have good digital literacy, with socio-cultural factors scoring the highest, followed by learning environment and individual factors. Moreover, it focuses on the use of educational technologies in higher education and their impact on students' engagement and retention. Likewise, the study conducted by Han and Kim (2022) in South Korea found that digital literacy intervention had a positive effect on the academic engagement of students with developmental disabilities.

METHODOLOGY

Research Design

The quantitative research method specifically, the descriptive-correlational design was used in this investigation. Statistical techniques were utilized in quantitative methods to manipulate pre-existing statistical data. Creswell (2014) cited that quantitative research uses objective measurement to gather numeric data to answer question. Quantitative research, therefore, is a type of study that is deductive in which it infers from the tests and surveys undertaken by the researcher about the characteristics of the population being studied. Specifically, this study is quantitative since the researcher collected and analyzed numerical data using a survey questionnaire.

Further, Bhandari (2020) described the descriptive design as used to obtain information concerning the status of the phenomena to describe what exists in variables or conditions in a situation. Descriptive research is a purposive process of gathering, analyzing, classifying, and tabulating data about prevailing conditions, practices, beliefs, processes, trends, and cause and effect relationships and then making adequate and accurate interpretations of such data with or without the aid of statistical tools. On the one hand, Stangor and Walinga (2014) noted that the descriptive correlation approach measures two or more relevant variables and assesses a relationship between and among them.

Furthermore, a descriptive correlational design refers to a study where the researcher attempts to describe, assess and discover the relationships between the variables which is, how the dependent and independent variables are related, linked or correlated to each other, without attempting to establish a causal connection (Miksza & Elpus, 2018). More so, the correlational research finds out the relationship or association between the two variables being studied, social networking use and digital literacy as the independent variables and engagement of the students as the dependent.

Moreover, the quantitative descriptive correlational design was suitable for this study since the researcher was interested in determining if social networking use and digital literacy significantly influence students' engagement. The descriptive correlational design further described and assessed the relationships of the variables as mentioned above. Nevertheless, this study was deductive since it utilized a questionnaire that predicted the correlation of the variable.

Research Respondents

The respondents of this study were the 221 public school Grade 11 students in the schools division of Davao City. The 221 respondents were taken from the population size of the three national high schools through stratified random sampling. Stratified random sampling was a method of sampling that involved the division of a population into smaller sub-groups known as strata. Additionally, Sekaran and Bougie (2016) suggested that a sample size greater than 30 and less than 500 is suitable for most studies.

Meanwhile, the researcher determined the inclusion criteria in selecting the respondents of the study. In selecting the student respondents, Grade 11 students were chosen as the respondents because they had all completed the Media and Information Literacy course in the 1st semester of the school year 2023-2024. Additionally, they had to be officially enrolled as students in a public senior high school during the 2023-2024 school year, within the boundaries of three public senior high institutions located in Davao City. Having them as respondents provided more meaningful results for the study. The study's exclusion criteria are those other than senior high school students at the selected schools who have no informed consent form (ICF) signed.

Research Instruments

This study utilized a questionnaire that was divided into three parts which were all adapted from published research available online. The first part of the questionnaire dealt with the social networking use. On the other hand, the second part of the questionnaire was about the students' digital literacy. The third part included students' engagement among public senior high schools in Davao City. In order to establish the construct validity of the instrument, it was subjected to validation by a panel of experts and pilot tested on 30 respondents, and Cronbach's alpha was computed to measure its reliability.

The first adapted questionnaire was the Social Networking Use Questionnaire from the study of Gupta and Bashir (2018). The questionnaire had four distinct indicators: academic, socialization, entertainment, and informativeness. The first domain, academic, consisted of seven items. The second, socialization, consisted of five items. The third, entertainment, consisted of four items. The fourth, informativeness, consisted of three items. In the questionnaire, the students specified their level of agreement with the statements in the questionnaire on a five-level Likert scale (always, often, sometimes, rarely, and never). It had a Cronbach's alpha of .830. For each item, the respondents chose on a five-point Likert scale anchored at (1) Never, (2) Rarely, (3) Sometimes, (4) Often, and (5) Always.

The second part of the instrument was the Digital Literacy Scale Questionnaire from the study of Amin et al. (2022). The questionnaire had nine distinct indicators: communication, copyright, critical thinking skills, character, citizenship, curation, connectedness, creativity, and collaboration. The first domain, communication, consisted of seven items. The second, copyright, consisted of four items. The third, critical thinking, consisted of three items. The fourth, character, consisted of three items. The fifth, citizenship, consisted of four items. The sixth, curation, consisted of three items. The seventh, connectedness, consisted of five items. The eighth, creativity, consisted of four items. The ninth, collaboration, consisted of three items.

In the questionnaire, the students specified their level of agreement with the statements using a five-level Likert scale. Five points were assigned for "strongly agree," four for "agree," three for "neutral," two for "disagree," and one for "strongly disagree." It had a Cronbach's alpha of .894. The questionnaire had four parts: academic, socialization, entertainment, and informativeness.

The third part of the research instrument adapted the Student Engagement in Schools Questionnaire (SESQ) from Hart et al. (2011). The questionnaire has five indicators. The first domain, the affective - liking for learning: consisting of three items. The second: affective - liking for school, consisting of four items. The third: behavioral - effort and persistence, consisting of nine items. The fourth: behavioral - extracurricular activities, consisting of three items. The fifth: cognitive consisting of twelve items.
It has a Cronbach's alpha of .70. The questionnaire has four parts namely academic, socialization, entertainment, and informativeness. For each item the respondents will choose on a five-point Likert scale anchored at (1) never, (2) rarely, (3) sometimes, (4) often, (5) always.

Data Analysis

The following statistical tools were utilized in analyzing and interpreting the data gathered:
Mean. It is the most common statistical used to measure the center of a numerical data set. It is also referred to as the average. This was used to determine the level of social networking use, digital literacy, and student engagement in schools A, B and C.

Standard Deviation. It was used to quantify the variation or dispersion of the set of data values. A low standard deviation indicates that the data points tend to be close to the mean of the set, while a high standard deviation indicates that the data points are spread out over a broader range of values. Moreover, this was useful in determining the consistency of the responses on the students' social networking use, digital literacy and engagement. It was used to determine how varied the responses of the respondents were.

Pearson Product-Moment Correlation. It was also employed to gauge how the variables related to one another. The Pearson's correlation coefficient was used to measure the linear association between two variables measured on interval or ratio scales. A line of best fit through the data of two variables was attempted, and the distance between each data point and this line of best fit was indicated. The Pearson product-moment correlation coefficient is represented by the letter "r." The researcher was able to look into the relationship between the variables under investigation with the aid of this method. More precisely, the Pearson correlation (r) coefficient was employed to ascertain whether student engagement in schools A, B, and C is significantly correlated with students' use of social networking sites and digital literacy.

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Regression Analysis. It was applied to the data to identify trends. Additionally, by fitting a linear equation to the observed data and generating predictions based on the relationship between the variables in the study, linear regression was used to model the relationship between the variables. A confidence level of (α=0.05) was established. It was also utilized to ascertain how students' engagement was impacted by their combined usage of social networking sites and digital literacy.

RESULTS AND DISCUSSION

This part of the paper presents the conclusions and recommendations of the researcher. The discussion is supported by the literature presented in the first chapters, and the conclusion follows the order of the problems presented in Chapter 1.

Findings

Based on the results of the study, the findings were presented as follows:

1. The level of social networking use among students yielded an overall mean of 3.99, categorized as high which means that it was often manifested. The indicators academic, socialization, entertainment, and informativeness obtained a high category mean of 4.07, 3.91, 4.17 and 3.99, respectively. Further, the overall standard deviation of 0.54 which is less than one, denotes that the respondents have ratings that are practically almost same.
2. The level of the students' digital literacy has an overall mean was 3.76, described as high, which was oftentimes observed. The findings revealed that the character and citizenship got a very high category mean of 4.31 and 4.52, respectively. On the other hand, the communication, copyright, critical thinking, curation and collaboration obtained a high category mean of 3.77, 4.06, 3.70, 3.93 and 3.76, respectively. Also, the connectedness and creativity gained a moderate mean of 3.08 and 3.19, respectively. The overall standard deviation of .43 indicates that most students are scoring within a close range.
3. The level of students' engagement had an overall mean of 4.19, categorized as high, which means that they were oftentimes evident. The indicator affective – liking for learning, affective – liking for school, behavioral – effort and persistence and cognitive got a very high category mean of 4.61, 4.36, 4.44 and 4.28, respectively. On the other hand, behavioral – extracurricular got a high category mean of 3.26. Moreover, the overall standard deviations value of 0.49 is less than one, denoting that the respondents have practically identical ratings.
4. The relationship between social networking use and students' engagement had a significant positive moderate relationship with a p-value of .000, which is less than the 0.05 level of significance. Similarly, the relationship between digital literacy and students' engagement was also found to be a significantly positive strong relationship with a p-value of .000, which is less than the alpha set at 0.05.
5. Social networking use significantly influenced students' engagement with a p-value of .004, which is less than the .05 level of significance (2-tailed) ($p < .05$) and a positive standardized beta value of .21. Likewise, digital literacy significantly influenced students' engagement with a p-value of .000, which is less than the .05 level of significance (2-tailed) ($p < .05$) and a positive standardized beta value of .26. Moreover, the combined influence of social networking use and digital literacy on students' engagement was significant ($F = 22.585$, $p < .05$). Meanwhile, the model explains 17.2 percent of the variance in students' engagement based on the independent variables of social networking use and digital literacy, as indicated by $R^2 = .172$. This means that 82.8 percent of the variance in students' engagement can be attributed to other factors not included in this study.
6. Based on the study's findings, an information technology intervention plan aimed at improving students' engagement was developed, focusing on integrating social networking use and enhancing digital literacy skills. The proposed plan emphasizes collaborative learning, effective communication, and critical thinking, all facilitated through various digital tools and platforms.

Conclusions

Based on the findings of this study the following conclusions were generated:

1. The level of social networking use obtained a high descriptive rating which means that social networking use of the student were oftentimes manifested. On the one hand, academic aspect got a high level, especially on the item I use social networking sites to do research work. On the other hand, the socialization dimension got a high rating, particularly on the item I use social networking sites to keep in touch with my relatives. Also, the entertainment side got a high rating especially in the item I use social networking sites to get relief from academic stress. While the informativeness got high rating as well specifically on the item, I use social networking sites in getting job-related information. It implies that students with high social networking use are more likely to be actively engaged in school, leveraging these platforms not only for academic research and collaboration but also for maintaining social connections and managing stress, which supports their overall academic and social involvement.
2. The level of digital literacy of the students acquired a high descriptive rating which means that the engagement of the students was oftentimes observed. In terms of character, citizenship got a very high level, especially on the items I accept and follow the terms and conditions for accessing any information and I respect the cultural differences in online world and respond accordingly. On the other hand, the dimension of communication, copyright, critical thinking, curation and collaboration got a high rating, particularly on the item I know the consequences of using copyright work online without permission. While the connectedness and creativity side got a moderate rating especially in the item I encourage and help my community to post

their problems and issues on social media for getting attention. It implies that students with high digital literacy are responsible and ethical users of online platforms, demonstrating strong awareness of digital citizenship and copyright laws, but may need further encouragement to actively engage in community-building and creative endeavors online.

3. The engagement of the senior high school students gained high descriptive rating which means that the students' engagement of the students was oftentimes evident. In the aspect of affective – liking for learning, affective – liking for school, behavioral – effort and persistence and cognitive got very high rating especially in the items I enjoy learning new things in class and I work as hard as I can in class. In contrast, behavioral – extracurricular was rated moderate especially in the item I am an active participant of school activities such as sport day and school picnic. This means that while students are highly engaged in their academic learning and classroom efforts, their participation in extracurricular activities is more limited, indicating a potential need for greater encouragement or opportunities to engage outside the classroom.
4. There was a significant relationship between social networking use and students' engagement among public senior high school students in Davao City. Similarly, there was a significant relationship between digital literacy and students' engagement. This implies that the increase in students' social networking use and digital literacy led to increased students' engagement. It means that students' knowledge and skills in using social networking platforms and digital tools in accomplishing the various tasks significantly increase students' engagement.
5. The combined influence of the two independent variables, social networking use and digital literacy, significantly impacted students' engagement. The anchored framework emphasized that both social networking use and digital literacy must be integrated thoughtfully to create meaningful, interactive learning experiences that drive student engagement.
6. To improve student engagement, an effective information technology intervention plan could involve the implementation.

Recommendations

From the conclusions drawn, the following recommendations are suggested:

1. It was found in this study that the social networking use of the students was high. It can still be raised to a higher level if educators provide students with structured opportunities to engage in collaborative online projects and discussions, while also teaching them how to use social networking sites responsibly and effectively for learning purposes. Additionally, teachers can integrate social networking tools into classroom activities, making them a more regular and meaningful part of the learning process and would empower students to maximize their social networking use for academic growth and peer interaction.
2. It was found that the digital literacy among students was very high. To maintain this degree, the researcher recommends that school administrator may provide intensive Information and Communication Technology-based trainings to equip students with knowledge and skills of integrating technologies into accomplishing various tasks and teachers with different subject areas. It was also proposed that stakeholders and school administrators look for ways to improve the school's Information and Communication Technology-based resources so they can be used as effectively as possible for teaching and learning. Most significantly, to guarantee coherence of Information and Communication Technology implementation in the teaching-learning activities, a more comprehensive school-wide Information and Communication Technology development plan may be put into place.
3. Since the student's engagement was high, it can still be raised in to very high level or maintained if students will embrace the use of social networking and digital literacy so that students can interact with classmates and teachers since it the key to increasing the engagement.
4. Although it was found that the social networking use and digital literacy significantly correlated with the student's engagement, the study is only based upon survey questionnaires, and this study is limited, the conclusions drawn cannot be generalized on a larger scale. Also, this study is carried out in Davao City context, in accordance with these limitations, a suggestion for further research, to carry out research in a larger scale, specifically region wide, using more participants which consequently leads to filling the research gap regarding empirical studies focusing on students' engagement in the classroom setting.
5. It was found that increasing the level of social networking use and digital literacy led to the increase in students' engagement; and hence, the researcher recommends that teachers integrate the use of social networking platforms and digital tools during whole-class instruction to improve students' engagement. Furthermore, the school administrators may provide comprehensive training and implement plans to enhance teachers' ability to incorporate social networking and technology into various task to maintain a high level of students' engagement.
6. Since the researcher developed a proposed IT intervention tool to develop the students' knowledge and skills in integrating social networking platform and digital tools into various tasks and improve their engagement. It is recommended that the participating schools in this study implement some, if not all, of them in their respective schools.

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