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Extent of Use of Technology for Holistic Student Formation

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Abstract

Aims: This study aims to ascertain the extent to which technology contributes to holistic student formation and 21st-century learning skills.

Place and Duration of Study: The study includes 190 students from La Fortuna National High School who participated in the school year 2023-2024 as respondents. The participants are 10th grade students.

Methodology: The study employs the descriptive-correlation method and utilizes a specially designed questionnaire to gather the required data. The researcher focuses on technology, such as social media sites and technology devices. Additionally, students studying holistic behavior are involved. They used frequency, total, percentage, standard deviation, and correlation to describe respondents in terms of specific variables. in terms of specific variables

Results: The findings revealed that the majority of respondents engage in holistic creation using technology. They found that their holistic approach to technology significantly influenced schools to integrate educational technology, teaching students how to use social media and technology correctly and fostering a positive attitude towards its use. There is a significant relationship between technology use and high school students' holistic development.

Conclusion: The scale of respondents' use of social media sites was low. Respondents preferred Messenger and not Instagram. Respondents prefer smartphones over tablet computers, indicating a low level of technology use. Technology significantly contributes to the holistic development of respondents, with the morally righteous indicator ranking highest and the physically stable indicator ranking lowest. Respondents' access to technology has a moderate correlation with their use of it to enhance students' holistic development.

Keywords: Use of Technology, Holistic, Student Formation

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INTRODUCTION

Holistic development is an essential ability for learners in the twenty-first century. Holistic development is the process of selfactualization and learning that encompasses an individual's cerebral, physical, social, emotional, and spiritual progress. The holistic method to learning involves transforming one's frames of reference rather than relying on transmission and transaction. As a development method, it seeks to integrate and embrace numerous levels of experience and meaning rather than focusing solely on an individual's potential and opportunities. This means that every component of a learner's potential and ability must be determined (1).

Holistic student formation refers to the comprehensive development of students. It can include skills, behavioral training, physical fitness, and other aspects necessary for students' full growth as members of society. However, it is important to stress that holistic teaching techniques do not ignore theoretical education. Holistic education covers all aspects of human development, as well as subject-matter theory. With this understanding, it is clear that holistic education plays a vital role in today's educational system (2).

The concept of holistic student development includes academic learning as well as the development of abilities such as problemsolving and analysis, but also seeing students as individuals who are developing and evolving affectively (emotionally) and morally. This educational philosophy is also known by a variety of terms, including character education, values education, moral education/formation, educating for citizenship, affective education, educating for social and personal responsibility, and holistic education. Thus, relevant research may concentrate on values, attitudes, beliefs, virtues, character, moral, spiritual, or affective consequences. Despite differences in nomenclature and meaning, these words are based on a set of similar principles. They all emphasize expanding beyond knowledge and skills to incorporate other aspects of being a person in society. Most authors advocate for an integrated approach to education, emphasizing the linkages and relationships between thinking, feeling, and action rather than isolating cognitive and affective or moral elements (3).

All students experience transition and transformation during their stay at the school. According to Eric Erickson's thesis, young adulthood is a developmental period in which students are battling with identity and transitioning from reliance on others to selfauthorship. Students in higher education encounter fresh ideas and ways of thinking when they connect with classmates from other backgrounds. Although mature students may be at a different developmental stage, they are still in a volatile transition period where they are questioning their current beliefs and reconstructing their identities. The students may be even more disruptive because established individuals have invested more in their pre-university identities, life choices, and views. So students are in a period of transition in which they must not only dismantle previous meanings and ways of producing meaning, but also rebuild a sense of purpose in their own lives that incorporates broader perspectives and worldviews. In this perspective, holistic student development includes a spiritual dimension, defined roughly as connection with something larger than oneself (4).

Holistic learning technology is intended for technology-driven teaching and learning, with a greater use of information technology in the process. The rapid growth and development of technology, networks, and internet systems enables pupils to access more knowledge. The advent of computer technology has resulted in innovation in teaching media, prompting educators to explore the possibilities of these technologies to create a variety of new teaching resources. Examples of teaching media advances include multimedia, teleconference, educational modules, and interactive video, among others (5).

Theoretical Background

Holistic learning theory acknowledges the interdependence of all human dimensions, including intellectual, emotional, physical, social, imaginative, and transpersonal ones. Real learning is deemed to have occurred when all dimensions are addressed. Holistic learning theory also acknowledges the interconnection of all things, including oneself, others, and the environment. Recognizing this interdependence, holistic learning theory defines intelligent acts as those that nourish or provide for oneself, others, and the environment. Unintelligent activities are those that disrupt such connection by harming or taking from oneself, others, or the environment (6).

Holistic learning theory incorporates cutting-edge quantum physics research as well as ancient concepts from shamanism, Gnostic Christianity, and perennial philosophy. Holistic is derived from the word 'holon', which means a whole that is also a part. That is, each small component of the entire includes the full within. The universe's basic blocks can be found in even the smallest particles of matter, similar to how each cell in our body contains the DNA of the entire organism. Understanding the universe requires more than just studying physical substance, just as understanding a person. Humans and worlds are far more than the sum of their physical components (7).

The holistic learning theory views each human being as a system of interrelated dimensions rather than a body with a brain and spinal cord. As a result, holistic educators aim to educate the entire learner. They strive to help students realize their full potential in all areas, including intellectual, emotional, social, artistic, moral, psychological, physical, aesthetic, creative, intuitive, spiritual, and others. Humans are not empty vessels that can be filled with a fixed amount of information. They cannot teach them to execute specific academic tasks automatically. Humans use their cognitive, emotional, creative, and intuitive talents to understand and interact with their surroundings (8).

A holistic learning theory also values social and interpersonal development. It emphasizes the importance of developing empathy, communication, and interpersonal skills. The approach encourages collaboration and teamwork, enabling students to interact with a variety of perspectives and ideas. This approach recognizes that the ability to work well with others is not only a critical skill in the academic context but also in the wider social and professional world. Furthermore, holistic learning integrates physical health and wellness into the educational experience. It recognizes the importance of maintaining a healthy body through regular exercise, nutrition, and overall well-being. The curriculum often integrates physical fitness but also mental and emotional health (9).

Research Objectives

This study aims to determine the extent of technology use for La Fortuna National High School in Agusan del Sur's holistic development for the school year 2023-2024. Specifically, this study will seek to answer the following questions:

- 1. To determine the level of use of technology (social media site) through:
 - 1.1. messenger
 - 1.2. google
 - 1.3. Facebook
 - 1.4. YouTube and
 - 1.5. Instagram
- 2. Determine the level of technology devices through:
 - 2.1. smartphone
 - 2.2. laptop and
 - 2.3. tablet
- 3. Know the level of holistic formation through:
 - 3.1. morally upright
 - 3.2. emotional competence
 - 3.3. aesthetically aware
 - 3.4. socialize responsibly
 - 3.5. physically stable and
 - 3.6. intellectually agile
 - 4. Is there a significant relationship between the extent of technology use and holistic formation?

Statement of Null Hypothesis

There was no significant relationship between the extent of technological use and holistic formation.

METHODS

Research Design

This research uses a descriptive correlation survey method. This is the most suitable design to gather information about the extent of technology use for overall formation among students at La Fortuna National High School, which includes the description, analysis, and interpretation of various learning-related variables.

Descriptive research involves extensive observation of respondents in terms of being morally upright, emotionally adept, aesthetically aware, socially responsible, physically strong, and smartly intelligent. The purpose of this research is to gather precise data for statistical calculations such as averages and frequencies. The primary purpose is to depict the data and features utilized in the sampling process (10).

Location of Study

La Fortuna National High School, one of the barangays of the Municipality of Veruela, Agusan del Sur.

Research Instruments

After a thorough review of various pieces of literature, the researcher, with the guidance of the advisor and expert panelists, will critically evaluate the questionnaire. They modified the questionnaire to align with the cultural context of the aforementioned school, which serves as the study's target respondent. The study modifies this to accommodate the variables under investigation. The questionnaire has two parts.

In the first part, they divide the collected data on the extent of technology use into two categories: (a) social media sites such as

Messenger, Google, Facebook, YouTube, and Instagram; and (b) technology devices such as smartphones, laptops, and tablets. Additionally, they developed five (5) indicators, each measuring the degree of technology utilization to address the issue, while the second part is to determine the holistic formation of high school students in terms of being morally upright, emotional competent, aesthetically aware, socially responsible, physically stable, and intellectually agile. They weighted the questions on a four-point Likert scale, with 1 denoting never, 2 sometimes, 3 usually, and 4 representing every time/all the time behavior. They obtain the score by summing the total ratings answered by the participant. The maximum score is 100 points.

Research Respondents

The study includes 190 students from La Fortuna National High School who participated in the school year 2023-2024 as respondents. In this study, the researcher will use the universal sampling method to ensure that all selected Grade 10 students are covered. Given that the students are already in Grade 10 at La Fortuna National High School, we anticipate that they have adapted to the school's culture.

Table 1

Distribution of Respondents

Section	Number of Respondents
Lawaan	40
Acacia	38
Narra	38
Yakal	38
Molave	36
Total	190
Total	190

Research Procedure

After obtaining approval from the Panel of Examiners and the endorsement letter from the Office of the Assumption College of Nabunturan-Graduate Studies Department, the researcher will collect data through the following methods: The researcher will prepare and send a letter to the Division of Schools Superintendent of Agusan del Sur seeking permission to conduct studies at the designated school. Once approved, it will be used by the latter to obtain permission from school leaders and gain access to respondents. In addition, since the respondents are 10th grade students, the researcher asks for parental consent. Because the students are minors, parental approval is required to participate in this study. The researcher has to provide a questionnaire for the survey.

Statistical Data

They use descriptive statistics like mean, percentage, standard deviation, and frequency count to describe variables like the extent of technology use and holistic formation. They used the Pearson-R test to determine if there is a significant relationship between respondents' use of technology and holistic formation among students at La Fortuna National High School. While the mean is a measure of central tendency, it is the sum of all the values in a data set, divided by the total number of data points. It represents the

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average value of a data test. This gives an idea of where the center value is located in a data test. Additionally, statisticians use Pearson-R correlation to gauge the strength of the relationship between two variables and their interrelationships.

RESULTS AND DISCUSSION

Extent of Technology Use

To highlight each variable, let's start with technology, specifically a social media site. This variable has five indicators. Messenger refers to a mobile app that enables chat and video communications through web-based messaging (11). Google defines it as a creative number equal to 10 to 100 powers, or more colloquially, an unfathomable number (12). Facebook is referring to a free online networking site where one can create a profile, share it, and interact with others (13). YouTube refers to a video sharing service where users can watch, like, share, comment on, and upload their own videos (14). Instagram refers to online mobile photo sharing, video sharing, and social networking services (15).

Table 2

Distribution of Respondents' Extent of Technology Use

Indicator	SD	MEAN	Description Level
messenger	0.81	3.10	
google	0.81	2.90	
Facebook	0.88	2.40	
YouTube	0.89	2.30	
Instagram	0.84	1.80	
Over all	0.84	2.50	

Table 2 displays the respondents' usage of social media sites, specifically Messenger, with an overall average of 3.10 (SD = 0.81) indicating regular use. is implies that the respondents utilized Messenger primarily during their time at home or school. According to the researcher, people use Messenger to communicate and build relationships through conversations. The overall average of 2.90 (SD = 0.81) indicates that the respondents frequently use Google. This suggests that students primarily utilize Google, which plays a significant role in education by enhancing the efficiency and productivity of both teachers and student On Facebook, they have a mean score of 2.40 (SD == 0.88), which is described as "sometimes." This indicates that the respondents only use Facebook, when necessary, as it can occasionally distract them from their studies. The average score for YouTube is 2.30 (SD = 0.89). be overall average of 2.30 (SD = 0.89) is 0.89) is described as once. The implication is that students sometimes use YouTube when they have access to it because opening YouTube requires data or the internet and because they only have smartphones and may not have much data to operationally, the overall average of

1.80 (SD = 0.84) for Instagram indicates that students rarely use this type of social media, with a description of "never." SD = 0.84), described as "never.". The implication is that students use Instagram in a less frequent way. Out of the five indicators, Messenger is the one that the respondents consistently use to communicate with their parents, teachers, and classmates, providing crucial information about their academic performance.

Particular device

Electronic devices are components that govern the passage of electrical currents to process information and control systems (16). A smartphone is a mobile device that combines cellular and mobile computing functions into a single unit (17). A laptop is a small, portable computer that is usually equipped with a thin LCD and an alphanumeric keyboard (18). A tablet is a wireless, portable personal computer with a touchscreen display. Tablets are typically smaller than notebook computers but larger than smartphones (19).

Table 3

The respondents' le	evel of u	ise of that	particular	device
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Indicator	SD	MEAN	Description Level
Smartphone	0.89	2.61	
Laptop	0.99	1.81	
Tablet	0.87	1.60	
Total	0.91	2.00	

Table 3 illustrates the extent to which respondents utilize technological devices, specifically smartphones, with an overall average of 2.61 (SD = 0.893) denoting their frequency of use. The data suggests that respondents utilize smartphones due to their significant role in establishing connections, whereas the overall average of 1.81 (SD = 0.99) indicates their occasional use of laptop computers. The implication suggests that the respondents, if they possess a laptop computer, use it for the majority of their time as students. Furthermore, the overall data revealed that the respondents rarely used tablet computers, as indicated by the overall average of 1.60 (SD = 0.876). This means that for these respondents, using a tablet computer is unusual, as the results indicate that they rarely use it. Among the four indicators, the respondents consistently use their smartphones for communication with those who are important to them and for connecting with each other.

Holistic Formation in technology

The third variable is the holistic formation in technology have five indicators. The holistic formation refers to not just a set but rather a way of behaving and living that encompasses more than just memorizing a set of facts (20). The term "morally upright" refers to behavior that adheres to standards of what is right or just, moral excellence, and moral goodness (21). Emotional competence is the ability to understand others and put yourself in their shoes without letting their feelings affect you (22). Aesthetically aware is defined as being sensitive to the aesthetic qualities in the world or around us, including art and nature, as well as reflecting on the emotional and intellectual responses elicited by aesthetic elements (22). The purpose of social responsibility is to measure its impact in a variety of ways, such as the existence of responsible jobs in schools, social planning (or project-making), reading and discussing literature, and social action. At the same time, the variety of techniques and methods for influencing social responsibility underlines the importance of practice, which allows students to put their understanding of social responsibility into action (23). The physically stable It is defined as being strong and healthy for someone, or strong and unlikely to break or fail at something (24). Intellectual agility is the ability to participate in and adapt to a wide range of situations by quickly and intelligently acquiring underlying knowledge, evaluating different points of view, and challenging our own understanding (25).

Table 4

The level of Holistic Formation in technology

Indicator	SD	MEAN	Description Level
Morally upright	0.84	2 .70	
Emotional competence	0.84	2.50	
Aesthetically aware	0.82	2.21	
Socialize responsibly	0.84	2.31	
Physically stable	0.66	2.30	
Intellectually agile	0.76	2.50	
Total	0.79	2.42	

Table 4 shows the level of holistic formation in technology in terms of moral uprightness, and the overall data shows that the respondents claim that technology can make them morally upright, as indicated by the overall average of 2.70 (SD = 0.84) described most of the time. The implication is that the respondents agreed that technology contributed to their moral uprightness to a certain extent. The overall average of 2.50 (SD = 0.841), described as sometimes, indicates the respondents' emotional competence when using technology. The overall average of 2.20 (SD = 0.822), described as sometimes, indicates the respondents' aesthetically aware nature. The implication is that social media is an important source of information, with Instagram being the most influential platform. The overall average of 2.31 (SD = 0.845) indicates social responsibility, which some describe as This implies that judicious use of social media enables individuals to achieve a balance between work and personal life. life. The physically stable has an overall average of 2.30 (SD = 0.668), as described sometimes. The implication is that respondents sometimes take advantage of the benefits of using social media for their own well-Furthermore, the overall average of 2.50 (SD = 0.761), which indicates intellectual agility, indicates that respondents use social media occasionally. times. The implication is that the respondents are convinced that using social media can make them intellectually agile.

Table 5

The relationship between the expanding use of social media sites and holistic development is worth exploring

Variable	P-value	Correlational Coefficient	Remarks
Social Media Site	<.0001	0.622	Significant
Technology Equipment	<.0001	0.553	Significant
Holistic Formation	<.0001	0.497	Significant

Table 5 shows the relationship between the expansion of the use of social media sites and the holistic development of users, with a p-value of <0.001 and a comment that is significant. It is evident from the table that they used social media sites, and the data

indicates that they did so. The implication is that students use social media at least occasionally. Also, the respondents' level of technology contributes to the overall development of students. The researcher's view is that in order for students to continue to interact with the rapidly changing world, they must realize how important technology is in shaping their future.

CONCLUSION

The study's findings led researchers to draw the following conclusions: The extent to which respondents used social media sites was low. Respondents preferred Messenger and not Instagram. Respondents prefer smartphones over tablet computers, indicating a low level of technology use. Technology significantly contributes to the holistic development of respondents, with the morally righteous indicator ranking highest and the physically stable indicator ranking lowest. Respondents' access to technology has a moderate correlation with their use of it to enhance students' holistic development.

RECOMMENDATION

In light of the previously mentioned findings, we hereby propose the following recommendations:

The Department of Education should conduct education in schools at all levels to ensure that students understand the correct use of social media and technology devices and develop a positive attitude towards their use. In school, it is possible. During class, they provide free laptops, smartphones, and tablets to deserving students who truly cannot afford them. Also, with online learning accepted at school as part of the teaching and learning methodology, one of the things schools need to consider is monitoring and management. Parents should support their children in their studies, particularly in the area of using technology devices, as this can significantly contribute to their students' holistic development. They must find ways to provide their children with the devices they need to stay up-to-date in the rapidly changing technological world. Future researchers may strive to follow the same topic but consider the perspectives of other stakeholders, such as teachers, school administrators, and parents, for better data triangulation.

CONSENT

As per international standards or universities standard, respondents' signed consent was the author(s) collected and preserved the materials.

ETHICAL APPROVAL

The researchers followed and adhered to all of the criteria for conducting the study, including the assessment methodology and standardized criteria. Voluntary participation, privacy, confidentiality, and permission. The Assumption College of Nabunturan Ethics Review Committee's requirements for organizational/location and technology issues were strictly adhered to. The researchers gained certification for carrying out the investigation.

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