

Amidst the Global Pandemic: Determining the Relationship of Awareness to E-Learning and Academic Interest among Senior High School Students in St. Mary’s College of Bansalan, Incorporated

Christian Vince Allas¹, Anthony Corpuz², Jessie Jame Gunsi³, Jimboy Fabroa⁴, Kelly Kent Perida⁵, Ramon Regaña Jr.⁶, Jhon Bryan J. Cantil⁷

¹(BS in Information Technology, St. Mary’s College of Bansalan, Inc., Email: vinceallas.10@gmail.com)

²(BS in Information Technology, St. Mary’s College of Bansalan, Inc., Email: corpuz724@gmail.com)

³(BS in Information Technology, St. Mary’s College of Bansalan, Inc., Email: jessiejamegunsi@gmail.com)

⁴(BS in Information Technology, St. Mary’s College of Bansalan, Inc., Email: jhongfabroa@gmail.com)

⁵(BS in Information Technology, St. Mary’s College of Bansalan, Inc., Email: kellykent1699@gmail.com)

⁶(Program Head, BS in Hospitality Management, St. Mary’s College of Bansalan Inc., Email: monbarcenaregana@gmail.com)

⁷(Program Head, BS in Information Technology, St. Mary’s College of Bansalan Inc., Email: jhonbcantil@gmail.com)

Abstract:

This study was conducted to measure the level of awareness to e-learning and academic interest of senior high school students in St. Mary’s College of Bansalan, Inc. (SMCBI), and to determine the significant relationship present between the two variables. This study used descriptive correlational method as research design with the statistical tools of relative frequency, mean, ANOVA, and Pearson correlation coefficient r. Two adapted questionnaires were utilized during the data collection. The gathered information were analysed and interpreted by a statistician and explained further by the researchers. The survey was virtually administered to 151 senior high school students of SMCBI using Google Forms software. The survey results showed that the levels of awareness to e-learning and academic interest are moderate. There is no significant difference on the level of both awareness to e-learning and academic interest according to gender, age group, and SHS program; but results showed a significant difference on both variables according to year level. Awareness to e-learning and academic interest were found to have a strong positive correlation. Utilizing the findings of the present research study, recommendations were also discussed.

Keywords —descriptive-correlational method, awareness to e-learning, academic interest, St. Mary’s College of Bansalan, Incorporated

I. INTRODUCTION

The academic and technological areas of the society have been greatly impacted during the wake of the Covid-19 pandemic. To ensure the health safety of the students and educators, schools across the globe started to offer alternative modalities of education like online learning platforms, self-

learning modules, or mixed online and modular distance instruction [1]. In China, the sudden shift of learning modality has affected the academic perceptions, awareness, and motivational levels of students [2]. On the other hand, the alternative educational modalities, specifically the e-learning, also impacted the academic interest of the students. In fact, it was found to be significantly lower during

the pandemic where classes do not occur in actual classrooms because of the absence of the face-to-face interaction between the students and the teachers [3].

Bringing into focus, the awareness to e-learning and the academic interest were being defined by various authors and are seen to have a significant link to each other. As per definition, awareness to e-learning is the pre-determined knowledge of the student to the teaching-learning processes made possible by electronic devices and computer systems. According to a literature, the measurement of awareness to e-learning is reflected by the how students perceive its usefulness, ease to use, and efficacy. With the help of these three factors, students will be more interested to academically engage themselves [4]. Meanwhile, the academic interest refers to the student's preferred engagement to learning. As said by studies, there are four driving factors of academic interest: emotion, value, knowledge, and engagement. The higher the levels of these factors, the higher the level of academic interest [5]. Connectedly, a statistical analysis was able to show that as the students' levels of awareness and attitude towards e-learning gets higher, the students are also more interested to engage themselves academically; thus, the positive relationship between the variables [6].

Forging ahead, an Indian study also highlighted the significant relationship between e-learning awareness and academic interest of students. The learners seemed to be more interested to learning when they have good perceptions and awareness to the learning modality they are utilizing. For instance, a student seems to be more engaged, interested, and motivated when he is knowledgeable about the nature of online learning. This is evidenced by the increased virtual communication, inquiries, and interaction between students and teachers through the internet [7]. Further, a literature suggested that, since there is a significant correlation between e-learning awareness and academic interest, it is imperative to improve the ICT literacy of both learners and teachers to increase the interest levels of students toward

learning. An increased interest is said to affect the motivation which will eventually affect the overall performance of the student [8].

In a study done in the Philippines, students tend to engage themselves more to the online instructional materials when they have enough awareness as to the e-learning system, thus, a manifestation of increased academic interest. The term "awareness" in the said study mainly focused on the students' knowledge about the usefulness of the e-learning system. That is, when the students know how to manipulate and what cognitive benefits they can get from the e-learning system, they are seen to be more eager to immerse themselves to the lessons and courses that are offered in the system. Consequently, if the students do not see any benefits, their interest is decreased [9].

Locally, the schools in Bansalan, Davao del Sur have shifted their educational platforms from conventional classrooms to modular, online or mixed modality to avoid the infection of the current pandemic. Specifically, the senior high school department of St. Mary's College of Bansalan chose self-learning modules as the main instructional material for the students. However, teachers are also utilizing the advantage of social media platforms to communicate and give further instructions and discussions to their learners apart from the given printed modules. In line with this, it is essential to measure the significant relationship of the awareness of the senior high school students towards e-learning, and their academic interest to the new method of education amid the pandemic. This shall pave way to the creation of more engaging online educational systems and more motivating pedagogy to increase the academic interest of the students.

Theoretical Framework

There are two theories being used in this research study, namely, the concept of Self-regulated Learning authored by B. J. Zimmerman [10] and the Person-Object Theory of Interest developed by A. Krapp [11]. These theories were

written to give foundations to the concepts of the academic awareness specifically in e-learning, and the academic interest of students. Further, the said theories were used to study the personal driving factors of students upon engaging to the academic environment.

The independent variable of the study, Awareness towards E-Learning, is anchored to the concept of Self-regulated Learning. According to the latter concept, one has the ability to have awareness, understanding, and control in his learning environment whether it is in an actual classroom or virtual one. To discuss further, the theory is also suggesting that, since learners have different self-regulation practices, they may have variations in terms of awareness towards e-learning depending on their pre-determined knowledge of the said modality [12]. In a study done by Roeser, et. al., they utilized the said theory as supporting idea for their claim that the self-regulated learning contributes educational awareness to the students, and that educational awareness later establishes a higher level of interest [13]. As support, the proponent of Self-regulated Learning also theorized that awareness in any environment is significantly linked to the interest [14]. That is, if one has enough pre-determined knowledge about what is the learning modality all about, he is more interested to engage himself to that modality.

Moving ahead, the dependent variable of this study, Academic Interest, is anchored to the Person-Object Theory of Interest. According to the theory, the person's interest depends on the ongoing interactions between the environment (object) and the person. Connectedly, if the person often interacts with the environment, he gains awareness about how the environment basically works; and, it will eventually establish the likelihood of having more interest [15]. Moreover, a certain study provided a proof that the said theory is applicable to the academic interest because it was able to find out that a student is more interested when he has high levels of awareness and good expectations towards the environment of the class he is enrolled [16]. Therefore, this suggests that the academic interest

of a learner can actually be measured by how much awareness he has about the e-learning modality of instruction.

Contextualizing to this present study, the two theories being presented are applicable to be anchored in studying the relationship between Awareness towards E-Learning and Academic Interest of Students. This is because the concepts provided were able to show that the awareness in any environment - which is identified through self-regulated learning - can increase or decrease the interest level of a specific person as discussed in the Person-Object Theory of Interest. Hence, the theories support the idea that the awareness to e-learning can be significantly linked to the interest of the student to engage him academically.

Conceptual Framework

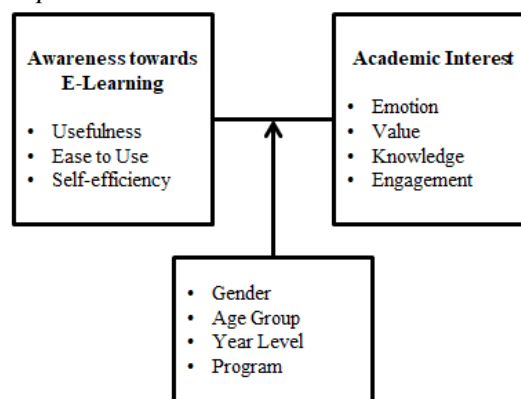


Figure 1. Conceptual Framework of the study

Presented in the illustration above is the conceptual framework of this current study. It shows the independent variable, dependent variable, and the moderating variable with their respective indicators.

The independent variable, Awareness to E-Learning, has three indicators namely, Usefulness, Ease to Use, and Self-efficacy as indicated by Yacob, Kadir, Zainudin, & Zurairah [17]. According to various authors, in order to assess the awareness of students to the e-learning implementation in the curriculum, it is necessary to measure the perceptions of the student towards the e-learning in

terms of its capability to decrease risks of learning (usefulness) [18], its effortless interaction towards instructional materials (ease to use) [19] and its ability to make students learn on their own pace (self-efficacy) [20].

Moving on, the dependent variable, Academic Interest, has four indicators, namely, Emotion, Value, Knowledge, and Engagement as indicated by Luo, Dang & Xu [21]. The Emotion indicator was defined by Hidi and Renninger as the positive feelings associated with the activities, such as pleasure, excitement and enjoyment. The same authors also defined the Value indicator as the insight of a student towards the importance of an object or domain to the individual development [22]. Meanwhile, the Knowledge indicator refers to the perception of the stored knowledge towards a certain domain; and was evidenced to have positive correlation towards interest [23]. On the other hand, the Engagement indicator refers to the susceptibility of students to participate in learning activities [24].

The moderating variable is the Demographic Profile of the respondents having four indicators, namely, gender, age group, year level, and program. This variable shall be used to moderate the interconnection of the Awareness to E-Learning and Academic Interest.

Forging ahead, various studies were able to show the possible interconnection between the two variables. A statistical analysis was able to reveal the positive link between awareness and attitude to online learning, and the academic interest of a student [25]. In connection, a literature found that a student seemed to be more interested, engaged, and motivated when he is aware about the nature of e-learning. In return, the student has increased virtual communication, inquiries, and interaction with his teachers as a manifestation of his increased interest [26].

Research Questions

This study intends to find out the degree of the relationship of the awareness to e-learning and academic interest among senior high school students in St. Mary's College of Bansalan, Inc.

Specifically, this study seeks, to answer the following questions:

1. What is the profile of the respondents in terms of:
 - a. Gender
 - b. Age Group
 - c. Year Level
 - d. SHS Program?
2. What is the level of awareness to e-learning among SHS students in St. Mary's College of Bansalan, Inc. in terms of:
 - a. Usefulness
 - b. Ease to Use
 - c. Self-Efficiency?
3. What is the level of academic interest among SHS students in St. Mary's College of Bansalan, Inc. in terms of:
 - a. Emotion
 - b. Value
 - c. Knowledge
 - d. Engagement?
4. Is there a significant difference in the level of awareness to e-learning when grouped according to:
 - a. Gender
 - b. Age Group
 - c. Year Level
 - d. Program
5. Is there a significant difference level of academic interest when grouped according to:
 - a. Gender
 - b. Age Group
 - c. Year Level
 - d. Program
6. Is there a significant relationship between the awareness to e-learning and academic interest among SHS students in St. Mary's College of Bansalan, Inc.?

Null Hypothesis

1. There is no significant difference in the level of awareness to e-learning when grouped according to demographic profile.

2. There is no significant difference in the level of academic interest when grouped according to demographic profile.
3. There is no significant relationship between the awareness to e-learning and academic interest among SHS students in St. Mary's College of Bansalan, Inc.

II. METHODOLOGY

Research Design

This study shall employ the descriptive-correlational research design. The said research design was coined from two different designs (namely: descriptive and correlational) being put together for scientific investigation. According to Calmorin and Calmorin, a descriptive research design is used when the study focuses at the present condition and the purpose is to find new truth. It is only useful when the data to be gathered concerns the present condition providing the value of facts and focusing the attention to the most important things to be reported [27].

On the other hand, the same authors who provided the definition for descriptive research above said that correlational design is valuable in providing facts on which scientific judgement was based. Further, it is also the design suitable in determining the relationship of two variables using correlation analysis [28].

This study is descriptive in nature because it aims to find out and describe the levels of Awareness to E-learning and Academic Interest. At the same time, it is correlational because it aims to measure the significant relationship that exists between the two variables

Research Locale



Figure 2. Research Locale

The study will be conducted in Saint Mary's College of Bansalan, Incorporated from March, 2021 to May, 2021. It is located in Dahlia St. Poblacion Uno, Bansalan, Davao del Sur. The school offers basic education and tertiary education. Further, the school's basic education department is comprised of elementary, junior and senior high school. The tertiary education, on the other hand, has four programs, namely, Bachelor in Elementary Education, Bachelor in Secondary Education, Bachelor of Science in Business Administration, Bachelor of Science in Hospitality Management, and Bachelor of Science in Information Technology. Due to the COVID-19 pandemic, the school has altered its modality of instruction to modular and online modality.

Participants of the Study

The participants of this study will be the students of the senior high school under the basic education department of Saint Mary's College of Bansalan, Incorporated. They are chosen because they are fit to the inclusion criteria set by the researchers. The inclusion criteria include, (1) respondents must be students, (2) respondents must be currently enrolled in a senior high school, and (3) respondents must be presently experiencing online-mediated learning or online communication with their teachers.

Sampling Techniques

Random sampling technique will be used in determining the number of respondents to be included in this present study. This sampling technique must be used when there is quite large number of populations who will take part as a sample of a study. In random sampling, the researchers will only get enough number of samples which are chosen randomly to be an unbiased representation of the total population. Hence, it is not necessary to include the whole population as samples. And, since the accumulated number of senior high school students is large, random

sampling technique will be excellent. Finally, using the Slovin’s formula, the recommended sample size for the population of 227 is 143.

Statistical Treatments

This study will use 4 different statistical tools, namely, Relative Frequency, Mean, ANOVA, and Pearson Correlation Coefficient R. These tools will be used to answer the research questions that this study aims to understand.

First is the relative frequency. Relative frequency refers to how many times a given value occurs within a set of numbers, such as in the data recorded for a variable in a survey data set. This tool will be used to describe the demographic profile as provided in sub problem 1.

Second is the Mean. Mean implies average of data. This tool will be used to gauge the levels of Awareness to E-Learning and Academic Interest of senior high school students as provided in sub problems 2 and 3.

Third is the ANOVA. ANOVA, or Analysis of Variance, is a statistical tool that is used to find out if there is a significant difference between the means of two or more groups. This tool will be used to measure the significant differences of the levels of the Awareness to E-Learning and the Academic Interest if grouped according to the demographic profile as provided in the sub questions 4 and 5.

Fourth is the Pearson Correlation Coefficient R. Pearson correlation coefficient r is a statistical tool to determine the relationship between two quantitative variables and the degree to which the two variables relate with one another. This tool will be used to measure the significant correlation between the Awareness to E-Learning and Academic Interest of the senior high school students as provided in sub problem 6.

Data Collection Procedures

The researchers of this present study will undergo the following steps in conducting the study about the Awareness to E-Learning and Academic Interest of senior high school students. First, a letter will be sent to the principal who administers the

senior high school department to ask permission to conduct the study. Second, when the permission will be granted, the researcher will start administering the questionnaire to the respondent using the Google Forms system. Third, the researchers will retrieve the administered questionnaires immediately after the respondents respond to the questionnaire. Fourth, the data to be gathered will be tallied, computed, and analysed using the appropriate statistical tools.

Research Instrument

The questionnaire for Awareness to E-Learning was adapted from Yacob, Kadir, Zainudin, & Zurairah which was modified to fit in to the study and will be subjected to the validation of the experts. The questionnaire for financial stress has the following indicators: Usefulness, Ease to Use, and Self-efficacy [29].

Meanwhile, the questionnaire for Academic Interest was adapted from Luo, Dang & Xu [5]. It was modified to fit in to the study and will be subjected to the validation of the experts. The questionnaire for the academic motivation has the following indicators: Emotion, Value, Knowledge, and Engagement.

Moreover, the items in both questionnaires will be answered by the respondents using the likert scale. 1 means Strongly Disagree, 2 means Disagree, 3 means Neutral, 4 means Agree, and 5 means Strongly Agree. In evaluating the level of Awareness to eLearning and Academic Interest based on the responses of the respondents, the five orderable gradations with their respective range of means and interpretations will be used:

TABLE I
LEVEL OF IV AND DV

| Range of Means | Description and Interpretation |
|----------------|--|
| 4.20 – 5.00 | <i>Very High.</i> This means that items are always manifested. |
| 3.40 – 4.19 | <i>High.</i> This means that items are oftentimes manifested. |
| 2.60 – 3.39 | <i>Moderate.</i> This means that items are |

| | |
|-------------|--|
| | sometimes manifested. |
| 1.80 – 2.59 | Low. This means that items are seldom manifested. |
| 1.00 – 1.79 | Very Low. This means that items are not manifested at all. |

Further, in evaluating the extent of correlation between Awareness to eLearning and Academic Interest, the following table for interpretation will be used:

TABLE II
EXTENT OF CORRELATION BETWEEN IV AND DV.

| Range | Description |
|---------------|---|
| ±1.00 | Perfect Positive/Negative Correlation |
| ±0.80 - ±0.99 | Very Strong Positive/Negative Correlation |
| ±0.60 - ±0.79 | Strong Positive/Negative Correlation |
| ±0.40 - ±0.59 | Moderate Positive/Negative Correlation |
| ±0.20 - ±0.39 | Weak Positive/Negative Correlation |
| 0 - ±0.19 | Negligible Positive/Negative Correlation |

Continually, the first draft of the research instrument was submitted to the research adviser for comments, suggestions and recommendations to improve its presentation with the corrections to be included and integrated. The final copies will be submitted to panel of experts for refinement. The final revision will be made by incorporating the corrections, comments and suggestions given by the expert validators before the gathering of data.

Ethical Considerations

In the conduct of this study especially before the data will be gathered, ethical issues and considerations will be dealt.

In terms of the avoidance of plagiarism, the researchers used the turn-it-in software to ensure that no trace/evidence of misrepresentation of someone else’s work as their own. In the same manner, fabrication is also considered by the researchers wherein no trace/evidence of intentional misrepresentation of what has been done.

Next is the conflict of interest (COI) wherein no trace of COI, wherein there will be no set of conditions in which a professional judgment concerning primary interest such as the participants’ welfare or the validity of the research tends to be influenced by a secondary interest such as financial or academic gains or recognitions. Moreover, deceit is also avoided in which evidence that the benefit of misleading the respondents outweigh any potential harm to them.

Lastly, the researchers will express getting a written permission/consent from the organization/respondents in which the research will be undertaken or the location in which the data will be collected. Also, the researchers will ensure the anonymity and confidentiality by hiding the identity of the respondents.

III. RESULTS AND DISCUSSION

RQ1: What is the profile of the respondents in terms of Gender, Age Group, Year Level, and SHS Program?

The table 3 shows the demographic profile of the respondents in terms of gender, age group, year level, and SHS program. As shown, there are 151 senior high school students who have answered in the survey.

TABLE III
DEMOGRAPHIC PROFILE OF THE RESPONDENTS

| Characteristics (n=151) | Level | Frequency | Percentage |
|-------------------------|--------|-----------|------------|
| Gender | Male | 76 | 50.30% |
| | Female | 68 | 45.00% |
| | LGBT | 7 | 4.60% |

| | | | |
|-------------|--------------|-----|--------|
| Age Group | 17 and below | 32 | 21.20% |
| | 18-20 | 83 | 55.00% |
| | 21 and above | 36 | 23.80% |
| Year Level | Grade 11 | 40 | 26.50% |
| | Grade 12 | 111 | 73.50% |
| SHS Program | STEM | 31 | 20.50% |
| | HUMS S | 29 | 19.20% |
| | ABM | 26 | 17.20% |
| | ICT | 31 | 20.50% |
| | TVL | 9 | 6.0% |
| | GAS | 18 | 11.90% |
| | HES | 7 | 4.60% |

In terms of Gender, there are 76 male students which are 50.3% of the total samples; 68 female students which are 45% of the total samples; and 7 LGBT which are 4.6% of the total samples. In terms of Age Group, 21.2% or 32 of the student respondents are aged 17 years old and below; 55% or 83 of the student respondents are aged 18-20 years old; and 23.8% or 36 of the students are aged 21 years old and above. In terms of year level, 25.5% or 40 of the student respondents are grade 11; and 73.5% or 111 of the student respondents are grade 12. In terms of SHS program, 20.5% or 31 of the respondents are STEM; 19.2% or 29 of the respondents are HUMSS; 17.2% or 26 of the respondents are ABM; 20.5% or 31 of the respondents are ICT; 6% or 9 of the respondents are TVL; 11.9% or 18 of the respondents are GAS; and 4.6% or 7 of the respondents are HES.

RQ2: What is the level of awareness to e-learning among SHS students in St. Mary's College of Bansalan, Inc. in terms of Usefulness, Ease to Use, and Self-Efficiency?

Presented in the table 4 are the respective means and standard deviations of each indicator under the independent variable Awareness to e-Learning.

TABLE IV
AWARENESS TO E-LEARNING, n=151

| Indicators | Mean | Standard Deviation |
|--------------------------------|--------|--------------------|
| Usefulness | 3.5722 | 1.04920 |
| Ease to Use | 3.3722 | 1.01009 |
| Self-Efficiency | 3.3086 | 0.99458 |
| <i>Awareness to E-learning</i> | 3.4177 | 0.98500 |

As reflected, the first indicator, usefulness, has a mean score of 3.57 with a standard deviation of 1.05. This means that the items related to usefulness are oftentimes manifested. This further implies that the students' level of awareness to e-learning in terms of its usefulness is high. This result has been supported by the literature of Toni Mohr, Holtbrügge, & Berg [30] which states that students are aware that e-learning systems are useful especially when these systems cater their various learning styles of different complex activities.

Moving on, the second indicator, ease to use, has a mean score of 3.37 with a standard deviation of 1.01. This means that the items related to ease to use are sometimes manifested. This further implies that the students' level of awareness to e-learning in terms of ease to use is moderate. In support, the literature of Morris, Al-Ayyoub, & Abbad [31] claims that students consider their awareness about the ease to use of an elearning system. If they find the latter to be more user-friendly, they tend to have higher intentions to enrol in elearning courses.

Forging ahead, the last indicator, self-efficiency, has a mean score of 3.31 with a standard deviation of 0.99. This means that the items related to self-efficiency are sometimes manifested. This further implies that the students' level of awareness to e-learning in terms of self-efficiency is moderate. This is in relation to the points of Womble [32]

which says that the awareness and satisfaction of trainees towards an elearning system increase the levels of elearning usefulness and trainees’ self-efficiency.

Lastly, the overall variable Awareness to e-Learning has a mean score of 3.41 with a standard deviation of 0.99. This means that the items related to awareness to e-learning are sometimes manifested. This further implies that the students’ overall level of awareness to e-learning is moderate. In relation to this result, authors [4] said that the awareness to the overall nature of e-learning will contribute to the holistic functioning of a student of in the virtual academic area.

RQ3: What is the level of academic interest among SHS students in St. Mary's College of Bansalan, Inc. in terms of Emotion, Value, Knowledge and Engagement?

Reflected in the table 5 are the respective means and standard deviations of each indicator under the dependent variable Academic Interest.

TABLE V
ACADEMIC INTEREST, n=151

| Indicators | Mean | Standard Deviation |
|--------------------------|--------|--------------------|
| Emotion | 3.3936 | 0.97086 |
| Value | 3.7881 | 1.10623 |
| Knowledge | 3.2715 | 0.91959 |
| Engagement | 3.6386 | 1.02444 |
| <i>Academic Interest</i> | 3.5229 | 0.92371 |

As presented, the indicator emotion of Academic Interest has a mean score of 3.39 with a standard deviation of 0.97. This means that the items related to emotion are sometimes manifested. This further implies that the students’ level of academic interest in terms of emotion is moderate. This is supports the literature of Pekrun and Linnenbrink-Garcia [33] which says that the emotions of a student in the academic context is one of the main dictators of how he is interested to engage him to learning.

Continually, the indicator value of Academic Interest has a mean score of 3.79 with a standard deviation of 1.1. This means that the items related to value are oftentimes manifested. This further implies that the students’ level of academic interest in terms of value is high. To discuss, Luo, Dang, & Xu [5] says that the value indicator refers to the degree of a course’s importance, meaning and usefulness as perceived by the students. In relation to the result, the same authors added that the course’s value, as seen by a student, will affect how he is interested to learning.

Moving forward, the indicator knowledge of Academic Interest has a mean score of 3.27 with a standard deviatin of 0.92. This means that the items related to knowledge are sometimes manifested. This further implies that the students’ level of academic interest in terms of knowledge is moderate. This result affirms the idea of Alexander and Jetton [34] who said that the predetermined knowledge of a student about a certain subject will contribute to the student’s academic interest.

Proceeding, the indicator engagement of Academic Interest has a mean score of 3.63 with a standard deviatin of 1.02. This means that the items related to engagement are oftentimes manifested. This further implies that the students’ level of academic interest in terms of engagement is high. In support, Mazer [24] claims thatstudents who prefer to be engaged in academic activities tend to be more interested to learn brandnew knowledge.

Finally, the overall variable Academic Interest has a mean score of 3.52 with a standard deviation of 0.92. This means that the items related to academic interest are oftentimes manifested. This further implies that the students’ overall level of academic interest is high. In connection to this result, the study of Rotgans& Schmidt [35] says that academic interest predicts the observable academic achievement of students. This means that if a student’s interest is high, he is more likely to have more academic achievement. In e-learning context, a study supports the result by saying that students are academically interested

especially when there is a stable internet connection [36].

RQ4: Is there a significant difference in the level of awareness to e-learning when grouped according to: Gender, Age Group, Year Level and Program

Table 6 shows the significant difference on the level of Awareness to e-Learning according to gender.

TABLE VI
SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO E-LEARNING ACCORDING TO GENDER

| Gender | Mean | SD | F | Sig. | Decision |
|--------|------|------|-------|------|-----------|
| Male | 3.52 | 0.99 | 1.415 | 0.24 | Accept HO |
| Female | 3.27 | 0.93 | | | |
| LGBT | 3.69 | 1.27 | | | |
| Total | 3.41 | 0.98 | | | |

Since, p -value $0.246 > 0.05$, we do not reject the null hypothesis. There is no significant difference on the level of level of awareness to e-learning according to gender. This means that gender differences do not affect the level of awareness to e-learning.

Moving on, the table 7 shows the significant difference on the level of Awareness to e-Learning according to Age Group.

TABLE VII
SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO E-LEARNING ACCORDING TO AGE GROUP

| Age Group | Mean | SD | F | Sig. | Decision |
|--------------|------|------|------|------|-----------|
| 17 and below | 3.35 | 1.07 | 0.12 | 0.88 | Accept HO |
| 18-20 | 3.44 | 0.73 | | | |
| 21 and above | 3.40 | 1.36 | | | |
| Total | 3.41 | 0.98 | | | |

Since, p -value $0.885 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of awareness to e-learning according to age group. Therefore, age groups do not affect the level of awareness to e-learning.

Next, the table 8 shows the significant difference on the level of Awareness to e-Learning according to Grade Level.

TABLE VIII
SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO EARNING ACCORDING TO YEAR LEVEL

| Year Level | Mean | SD | F | Sig. | Decision |
|------------|------|------|-------|-------|-----------|
| Grade 11 | 2.83 | 0.55 | 11.58 | 0.001 | Reject HO |
| Grade 12 | 3.19 | 0.67 | | | |
| Total | 3.07 | 0.65 | | | |

Since, p -value $0.001 < 0.05$ then we reject the null hypothesis. There is a significant difference on the level of awareness to e-learning according to year level. This means that the grade level of students has something to do with the students' level of awareness to e-learning.

Lastly, the table 9 shows the significant difference on the level of Awareness to e-Learning according to SHS program.

TABLE IX
SIGNIFICANT DIFFERENCE ON THE LEVEL OF AWARENESS TO EARNING ACCORDING TO PROGRAM

| Program | Mean | SD | F | Sig. | Decision |
|---------|------|------|-------|------|-----------|
| STEM | 3.03 | 0.98 | 1.507 | 0.18 | Accept HO |
| HUMSS | 3.32 | 1.21 | | | |
| ABM | 3.50 | 1.06 | | | |
| ICT | 3.52 | 0.87 | | | |
| TVL | 3.91 | 1.05 | | | |
| GAS | 3.52 | 0.49 | | | |

| | | | | | |
|-------|------|------|--------------|------|------|
| HES | 3.78 | 0.60 | 21 and above | 3.47 | 1.30 |
| Total | 3.41 | 0.98 | Total | 3.52 | 0.92 |

Since, p -value $0.180 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of awareness to e-learning according to program. Thus, the program of the students does not affect the level of their awareness to e-learning.

RQ5: Is there a significant difference level of academic interest when grouped according to Gender, Age Group, Year Level, and Program?

Table 10 shows the significant difference on the level of Academic Interest according to gender.

TABLE X
SIGNIFICANT DIFFERENCE ON THE LEVEL OF ACADEMIC INTEREST ACCORDING TO GENDER

| Gender | Mean | SD | F | Sig. | Decision |
|--------|------|------|-------|-------|-----------|
| Male | 3.58 | 0.93 | 0.523 | 0.609 | Accept HO |
| Female | 3.43 | 0.89 | | | |
| LGBT | 3.67 | 1.10 | | | |
| Total | 3.52 | 0.92 | | | |

Since, p -value $0.545 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of level of academic interest according to gender. This means that gender differences do not affect the level of academic interest.

Forging ahead, table 11 shows the significant difference on the level of Academic Interest according to age group.

TABLE XI
SIGNIFICANT DIFFERENCE ON THE LEVEL OF ACADEMIC INTEREST ACCORDING TO AGE GROUP

| Age Group | Mean | SD | F | Sig. | Decision |
|--------------|------|------|-------|-------|-----------|
| 17 and below | 3.47 | 1.01 | 0.150 | 0.861 | Accept HO |
| 18-20 | 3.56 | 0.66 | | | |

Since, p -value $0.861 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of academic interest according to age group. This means that the students' level of academic interest is not affected by their age diversity.

Moving on, table 12 shows the significant difference on the level of Academic Interest according to year level.

TABLE XII
SIGNIFICANT DIFFERENCE ON THE LEVEL OF ACADEMIC INTEREST ACCORDING TO YEAR LEVEL

| Age Group | Mean | SD | F | Sig. | Decision |
|-----------|------|-------|-------|-------|-----------|
| Grade 11 | 3.15 | 1.13 | 9.264 | 0.003 | Accept HO |
| Grade 12 | 3.65 | 0.79 | | | |
| Total | 3.52 | 0.923 | | | |

Since, p -value $0.003 < 0.05$ then we reject the null hypothesis. There is a significant difference on the level of academic interest according to year level. This means that the year level

Proceeding, the table 13 shows the significant difference on the level of Academic Interest according to program.

TABLE XIII
SIGNIFICANT DIFFERENCE ON THE LEVEL OF ACADEMIC INTEREST ACCORDING TO PROGRAM

| Program | Mean | SD | F | Sig. | Decision |
|---------|------|------|------|------|-----------|
| STEM | 3.22 | 1.03 | 1.43 | 0.20 | Accept HO |
| HUMSS | 3.41 | 1.06 | 5 | 5 | |
| ABM | 3.54 | 1.01 | | | |
| ICT | 3.55 | 0.77 | | | |

| | | |
|-------|------|------|
| TVL | 4.04 | 1.00 |
| GAS | 3.79 | 0.40 |
| HES | 3.69 | 0.61 |
| Total | 3.52 | 0.92 |

Since, p -value $0.205 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of academic interest according to program. Hence, the program of the students does not affect the level of their academic interest.

RQ6: Is there a significant relationship between the awareness to e-learning and academic interest among SHS students in St. Mary's College of Bansalan, Inc.?

Presented in the table 14 is the significance of the correlations between awareness to e-learning and academic interest.

TABLE XIV
CORRELATION BETWEEN AWARENESS OF E-LEARNING AND ACADEMIC INTEREST

| Variables | Mean | SD | r-value | p-value |
|-------------------------|--------|---------|---------|---------|
| Awareness to E-learning | 3.5374 | 0.90201 | 0.928 | 0.000 |
| Academic Interest | 3.1630 | 0.94354 | | |

Table 12 shows a positive correlation between the awareness to e-learning and the academic interest. Since, p -value is $0.000 < 0.05$, then we reject the null hypothesis. There is a significant relationship between the awareness to e-learning and the academic interest. With the r -value of 0.928, the awareness to e-learning and the academic interest has very strong positive relationship. This means that if the Awareness to e-Learning increases, the Academic Interest also increases; same as to the other way around. This supports the literature of Bagarinao [9] which says

that when the students are aware about the e-learning, that is, when they know how to manipulate and what cognitive benefits they can get from the e-learning system, they are seen to be more eager to immerse themselves to the lessons and courses that are offered in the system. Consequently, if the students do not see any benefits, their interest is decreased.

IV. CONCLUSIONS AND RECOMMENDATIONS

After the conduct of data gathering, interpretation and presentation, here are now the conclusion and recommendations of this present research study.

Conclusion

- The results showed the demographic profile of the respondents from Saint Mary's College of Bansalan. In terms of gender, 76 males and 68 females have answered the survey. In terms of age, 32 respondents are 17 years old and below, 83 are 18-20 years old and 36 are 21 years old and above. In terms of year level, 40 respondents are grade 11 students and 111 are grade 12. In terms of program, 31 respondents are from STEM, 29 are from HUMSS, 26 from ABM, 31 from ICT, 9 from TVL, 18 from GAS, and 7 from HES.
- The results showed a moderate level of awareness to e-learning among the SHS students in ST. Mary's College of Bansalan.
- The results showed a moderate level of academic interest among the SHS students in ST. Mary's College of Bansalan.
- The results showed no significant difference on the level of awareness to e-learning according to gender, age group, and SHS program. Meanwhile, the results showed a significant difference in terms of year level.
- The results showed no significant difference on the level of academic interest according

to gender, age group, and SHS program. Meanwhile, the results showed a significant difference in terms of year level.

- The results showed a very strong positive relationship between awareness to e-learning and academic interest among the SHS students in ST. Mary's College of Bansalan.

Recommendations

Based on the findings revealed by this study, the following are the generated recommendations:

1. School administrators may conduct virtual seminars about the nature of the alternative modalities of education especially the e-learning modality to increase the students' awareness to such.
2. Teachers may integrate the indicators of academic interest (Emotion, Value, Knowledge, and Engagement) to their teaching approaches in the new learning environment to help increase the academic interest of the students.
3. Parents may give emotional and moral support to their children to increase their children's probability of having academic interest.
4. Since awareness to e-learning and academic interest have a strong positive correlation, stakeholders of the academic arena must work together to increase the awareness to e-learning which will consequently increase as well the academic interest of students.
5. Future researchers may conduct another study that will find other factors that affect the awareness to e-learning. This will widen the extent of knowledge about how awareness to e-learning is established and what are the reasons why it is positively related to academic interest.

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REFERENCES

- [1] S. Schwartz "States all over the map on distance learning rigor, detail," Education Week, 2020. [Online serial]. Available: <http://www.edweek.org/ew/articles/2020/05/13/enormous-variation-among-stateonline-learning-programs.html>. [Accessed April 27, 2021].
- [2] T. Chen, L. Peng, B. Jing, C. Wu, J. Yang, and G. Cong "The impact of the COVID-19 pandemic on user experience with online education platforms in China." Sustainability, vol. 12, no. 18, January, 2020.
- [3] S. Zaccoletti, A. Camacho, N. Correia, C. Aguiar, L. Mason, R. A. Alves, and J. R. Daniel, "Parents' Perceptions of Student Academic Motivation During the COVID-19 Lockdown: A Cross-Country Comparison," Frontiers in psychology, vol. 11, January 2020.
- [4] A. Yacob, A. Z. Kadir, O. Zainudin, & A. Zurairah, "Student Awareness Towards E-Learning In Education," Procedia - Social and Behavioral Sciences vol. 67, pp 93–101, January 2012.
- [5] Z. Luo, Y. Dang, & W. Xu, "Academic Interest Scale for Adolescents: Development, Validation, and Measurement Invariance With Chinese Students," Frontiers in psychology, vol. 10, p. 2301, June 2019.
- [6] K. Krishnapatria, "From 'Lockdown' to Letdown: Students' Perception of E-learning amid the COVID-19 Outbreak." ELT in Focus, 1st ed, vol. 3, pp. 1-8. April 2020.
- [7] D. Das, "E-LEARNING AMID COVID-19 PANDEMIC SITUATION: A CASE STUDY," The Online Journal of Distance Education and e-Learning, 1st ed, vol. 9, February, 2021.
- [8] S. R. Harandi, "Effects of e-learning on Students' Motivation," Procedia-Social and Behavioral Sciences, vol. 181, pp. 423-430, January, 2015.
- [9] Bagarinao, R. T. (2015). Students' Navigational Pattern and Performance in An E-Learning Environment: A Case from UP Open University, Philippines. Turkish Online Journal of Distance Education, 16(1), 101-111.
- [10] B. J. Zimmerman, "Attaining self-regulation: A social cognitive perspective," Handbook of self-regulation, pp. 13-39, January 2000.
- [11] A. Krapp, "An educational-psychological theory of interest and its relation to SDT," Handbook of Self-Determination Research, (pp. 405–430), August 2002.
- [12] K. Harris & S. Graham, "Programmatic intervention research: Illustrations from the evolution of self-regulated strategy development," Learning Disability Quarterly, vol. 22, pp. 251-262, January 1999.

- [13] R. W. Roeser & S. C. Peck, "An education in awareness: Self, motivation, and self-regulated learning in contemplative perspective," *Educational psychologist*, 2nd ed, vol. 44, pp. 119-136, 2009.
- [14] B. J. Zimmerman & D. Schunk, "Motivation: An essential dimension of self-regulated learning," *Motivation and self-regulated learning: Theory, research, and application*, January 2008.
- [15] A. Krapp & B. Fink. "The development and function of interests during the critical transition from home to preschool," *The Role of Interest in Learning and Development*, pp. 397-429, (February 1992).
- [16] H. Seker & A Terzi, "The Influence of Students' Expectations on Their Interests in Physics Lessons. Online Submission," January (2006).
- [17] A. Yacob, A. Z. Kadir, O. Zainudin, & A. Zurairah, "Student Awareness Towards E-Learning In Education," *Procedia - Social and Behavioral Sciences* vol. 67, pp 93-101, January 2012.
- [18] Hall, B. (2000). New study seeks to benchmark enterprises with world-class elearning in place. *Elearning*, 1 (1) 18 - 29.
- [19] D. Zhanqand & L. Zhou, "Enhancing e-Learning with interactive multimedia," *Information Resources Management Journal*, Vol.16 No. 4, pp. 1-14, 2003.
- [20] E. M. Rogers, "Diffusion of innovations," New York, 5th ed., 2013.
- [21] Z. Luo, Y. Dang, & W. Xu, "Academic Interest Scale for Adolescents: Development, Validation, and Measurement Invariance With Chinese Students," *Frontiers in psychology*, vol. 10, p. 2301, June 2019.
- [22] S. Hidi & K. A. Renninger, "The four-phase model of interest development," *Educational Psychology* vol. 41, pp. 111-127, 2006.
- [23] A. Krapp, "Interest and human development during adolescence: an educational-psychological approach," *Motivational Psychology of Human Development*, pp. 109-208, 2000.
- [24] J.P. Mazer, "Associations among teacher communication behaviors, student interest, and engagement: a validity test," *Communication Education*, vol. 62, pp. 86-96, 2013.
- [25] K. Krishnapatria, "From 'Lockdown' to Letdown: Students' Perception of E-learning amid the COVID-19 Outbreak." *ELT in Focus*, 1st ed, vol. 3, pp. 1-8. April 2020.
- [26] D. Das, "E-LEARNING AMID COVID-19 PANDEMIC SITUATION: A CASE STUDY," *The Online Journal of Distance Education and e-Learning*, 1st ed., vol. 9. February, 2021.
- [27] L. Calmorin & M. Calmorin, "Method of Research and Thesis Writing," Rex Book Store, 1996.
- [28] L. Calmorin & M. Calmorin, "Method of Research and Thesis Writing," Rex Book Store, 1996.
- [29] A. Yacob, A. Z. Kadir, O. Zainudin, & A. Zurairah, "Student Awareness Towards E-Learning In Education," *Procedia - Social and Behavioral Sciences* vol. 67, pp 93-101, January 2012.
- [30] A. Toni Mohr, D. Holtbrügge & N. Berg, Learning style preferences and the perceived usefulness of e-learning, *Teaching in Higher Education*, 3rd ed., vol. 17, pp. 309-322, 2012. Available at doi:10.1080/13562517.2011.640999.
- [31] M. Abbad, D. Morris, A.E. Al-Ayyoub & J. Abbad, "Students' Decisions to Use an eLearning System: A Structural Equation Modelling Analysis" *International Journal of Emerging Technologies in Learning (IJET)*, 4th ed., vol. 4, pp. 4-13, Kassel, Germany: International Journal of Emerging Technology in Learning, 2009, Available: <https://www.learntechlib.org/p/45142/>.
- [32] J.C. Womble, "E-learning: The relationship among learner satisfaction, self-efficacy, and usefulness". Ph.D. thesis, Alliant International University, San Diego. Available: <https://www.learntechlib.org/p/119496/>.
- [33] R. Pekrun & L. Linnenbrink-Garcia, "Academic Emotions and Student Engagement" *Handbook of Research on Student Engagement*, 2012. Available: https://doi.org/10.1007/978-1-4614-2018-7_12.
- [34] P. A. Alexander, and K. T. L. Jetton, "The role of subject-matter knowledge and interest in the processing of linear and nonlinear texts" *Rev. Educ. Res.* Vol. 64, pp. 201-252, (1994). Available: doi: 10.2307/1170694.
- [35] J. I. Rotgans, & G. H. Schmidt, "Situational interest and academic achievement in the active-learning classroom," *Learning and Instruction*, 1st ed., vol. 21, pp. 58-67, 2011.
- [36] J. Dublas, et. al., "Internet Connectivity and Learning Interest Among Bachelor of Science in Disaster Resiliency Management Students in Davao Del Norte State College." *International Journal of Scientific Research and Engineering Development*, volume 4, Jan-Feb 2021.