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Student Engagement and E-Learning Perception among College Students in Panabo City

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Abstract:

E-learning is indeed increasingly popular in higher education, particularly during this pandemic. One best way to make e-learning productive is to use engagement techniques for many institutions to ensure student success as they pursue their college degree. The primary goal of this descriptive-correlational research study was to determine whether there was a significant correlation between student engagement and e-learning perception among Panabo City college students. During the data collection phase of this study, two adapted questionnaires were used. The survey was virtually distributed to 101 college students of Panabo City through the Google Forms software. A statistician used four statistical tools to analyse and interpret the data: relative frequency, weighted mean, analysis of variance, and Pearson's r. The decoded data were presented and explained further by the researchers concisely. The survey results showed that the level of student engagement is high and that the level of e-learning perception is high. There is a significant difference in the level of both student engagement and e-learning perception according to gender, year level, and program field. Student Engagement and E-Learning Perception have a solid positive relationship. Student engagement is essential for student learning, particularly in the online environment where students can feel isolated and disconnected is prevalent.

Keywords —**E-Learning, Student Engagement, Descriptive-Correlational Research, College Students, Panabo City**

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I. INTRODUCTION

The landscape of distance education is changing [1]. The expanding acceptance and growth in online course offerings and complete online degree programs at colleges and universities worldwide are propelling this development. Demand for higher education has surged due to the recent global recession. Since most higher education institutions offer online courses, it's essential to evaluate their efficacy and give data to help colleges and universities meet students' educational needs.

The Covid-19 crisis caused an economic downturn that reduced state funding for public higher education. Many uncertain student enrolments as many students are forced to postpone or enrol part-time, and increased public

awareness of rising tuition rates and student debt levels [2]. Many universities have turned to online learning to solve these issues. Appropriate e-learning environments add to adapting instruction to reinforce learning goals since e-learning is considered motivation to enhance learning and improve student engagement. This will be the newest platform for every university to adjust to its educational environment.

Many institutions have adopted e-learning to extend access to instructional programs and handle the rise in recent high school graduates and individuals seeking additional education or skills in many areas while still lowering costs and preventing the establishment of large buildings. The key participants in e-learning programs are learners. Learners have more duties in web-based e-learning systems than traditional face-to-face learning systems. Distance learning facilities encourage collaborative learning across distances by providing communication tools for students. Faculty must examine the changing elements of online learning environments, such as course organization, student interaction, and teacher presence, as more colleges offer online courses. Faculties and students adapt to this new education and learning technique since this e-learning wave is a relatively recent development. One best way to make e-learning efficient for the institution and ensure student success as they continue pursuing a college degree is to use engagement techniques.

The distance learning system can be viewed as a collection of human and nonhuman institutions engaging via computer-based instructional systems to achieve educational goals such as perceived learning outcomes and students' satisfaction [1]. Students in higher education institutions are increasingly choosing distance education. According to a report by Author [3], 3.2 million educators in the United States, primarily undergraduates, were enrolled in at least one online course during the 2005 semester. According to the latest report by Author [4], online enrolees are rising more rapidly than overall higher education enrolments. Internationally, since the Babson Survey

Research Group began tracking online enrolment numbers in 2003, students taking at least one online course have grown faster than the general higher education student population. The number of online students increased by more than 20% in three years (2003, 2005, and 2009). However, the trend has been more gradual increases over the last four years. There have been several since 2009. The expansion of online enrolments has steadily declined from year to year [5].

Locally, many college students here in Panabo City are engaging in E-learning. It is the only way to engage every student in this pandemic situation in their academic learning. As researchers, we want to know their perceptions about e-learning and how it influences their students' engagement as a student. Further, no research study has ever been conducted locally regarding the said subject. Thus, the study's urgency is to be undertaken. Therefore, identifying gaps in student engagement and the digital world can take numerous forms. In this era of higher education, interconnectivity is critical for bridging the gap between student dreams and realities [6].

Theoretical framework

Engagement Theory

The study is anchored on the Author's [7]"Engagement theory" the concept of engagement is not limited to technology-based learning activities. The "Engagement Theory" is a framework for technology-related teaching and understanding. Its fundamental underlying idea is that students should meaningfully engage in learning activities through interaction with others and worthwhile tasks. Author [2] defines engagement in this way: The engagement belief is straightforward and quickly comprehended: the more students study a subject, the more they learn about it, and the more students practice and get feedback from their instructors on their paper and collaborative problem solving, the more in-depth they come to comprehend what they are learning, and it also says that this concept emphasizes how student engagement occurs

when their participation in learning (such as participating in a conversation or collaborating on a problem) contributes to their understanding and keeps them engaged in course activities. This study focuses on the activities discovered to be engaging in online learning.

E-learning Theory

Effective e-learning is designed to provide students with resources and support. There are numerous e-learning applications available. Blogs, wikis, online discussion boards, online games and simulations, online courses offered through learning management systems (LMSs), massive open online courses (MOOCs), tablet apps, and a variety of other tools fall into this category. Despite the abundance of free and premium e-learning resources available, many are lacking in proper and evidence based understandings of best practices for teaching students, delivering content, and designing technology interfaces [8].

Conceptual Framework
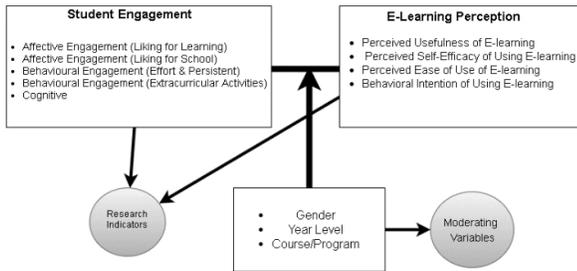
Figure 1. Conceptual Framework of the study

Figure 1 above presents the conceptual model used in this study. The diagram shows the relationship between student engagement and e-learning perception of college students. The standard graph shows what will answer the research problem. The first box on the left side represents the independent variable that contains its indicators to be discussed and explored; the right side represents the dependent variable to test the relationship or difference. The lower box represents the moderating variables that could affect the relationship between two variables.

Research Questions

The main research questions that guided this research study is:

RQ1. What is the demographic profile of the participants of the study in terms of:
   1.1 Gender
   1.2 Year Level
   1.3 Course/Program

RQ2. What is the level of Student Engagement in terms of:
   2.1 Affective Engagement (Liking for Learning)
   2.2 Affective Engagement (Liking for School)
   2.3 Behavioural Engagement (Effort & Persistent)
   2.4 Behavioural Engagement (Extracurricular Activities)
   2.5 Cognitive

RQ3. What is the level of E-Learning Perception in terms of:
   3.1 Perceived Usefulness of E-learning
   3.2 Perceived Self-Efficacy of Using E-learning
   3.3 Perceived Ease of Use of E-learning
   3.4 Behavioral Intention of Using E-learning

RQ4: Is there a significant difference in the level of student engagement when grouped according to:
   4.1 Gender
   4.2 Year Level
   4.3 Course/Program

RQ5. Is there significant difference in the level of when grouped according to E-learning perception:
   5.1 Gender
   5.2 Year Level
   5.3 Course/Program

RQ6: Is there a significant relationship between level of student engagement and level of e-learning perception?

Null Hypothesis

Ho1: There is no significant difference in the level of student engagement when grouped according to:
   a. Gender
   b. Year Level
   c. Course/Program

Ho2: There is no significant difference in the level of e-learning perception when grouped according to:
   a. Gender
   b. Year Level
   c. Course/Program

Ho3: There is no significant relationship in the level of student engagement and in the level of e-learning perception.
Ho4: The student engagements do not significantly influence the e-learning perception.

II. METHODOLOGY

The methodology describes and explains about the different procedures including research design, research locale, participants of the study, data gathering procedure, sampling technique, statistical treatments as well as the ethical consideration

Research Design

The researchers use descriptive correlational research as the design in this study because the goal is to examine the relationship between Student Engagement from the Hart et.al. [9]study and E-Learning Perceptions from the Khan et.al. [10]study. Correlational research seeks to determine the relationship between two or more variables and their cause and effect [11].

A research design is the framework of study methods and techniques chosen by a researcher. The design enables researchers to focus on appropriate research methods for the particular topic and set up their research for achievement. On the other hand, a correlation is a statistical test that determines the tendency or pattern for two (or more) variables or two sets of data to vary consistently [12]. Further, a correlational research study describes what exists between variables and examines relationships between two or more variables of interest in a systematic manner. It will provide insight into how the other will change. The study will look at either positive and negative correlations, in which either variables rise or only one increase.

Research Locale

The study will be conduct at any Barangays in Panabo City, Davao Del Norte. The researchers clustered any institutes in the aforementioned college. The respondents are regular college students enrolled in a specific program.

Participants of the Study

The term population refers to all members of a specific group. It is the group of concern to researchers, the group to which the researchers wish to generalize the findings of this study.

The study selected a quota of 100 participants that are residents of Panabo City, Davao del Norte, as respondents to the research. All study participants were chosen using quota sampling among college students in Panabo City. The study includes all students who are 18 years old, regularly and officially enrolled in the various programs regarding personal demographic factors such as gender, and course/program enrolled.

Sampling Techniques

The samples for this study will be chosen using the quota sampling technique. Quota sampling is a sort of non-probability sampling technique. This indicates that not all population members are selected to participate in the study [13]. In this situation, the overall sample size will be determined only by the number of people who completed the online survey—furthermore, 100 college students answered the survey.

Statistical Treatments

The following are the statistical tools that will be utilized during the conduct of research:

1. *Relative Frequency.* This tool will define the respondents' Gender, Year Level, and Course/Programs specified in sub-problem 1.
2. *Weighted Mean.* This tool will describe the levels of Student Engagement and E-learning Perception of college students as provided in sub-problems 2 and 3.
3. *Analysis of Variance.* This tool will describe the significant differences in the levels of Student Engagement and the levels of E-Learning Perceptions when analyzed by Gender, Year Level, and Course/Program, as provided in the sub-questions 4 and 5.
4. *Pearson r.* This tool will describe the significant relationship between the Student Engagement and the E-Learning Perceptions of college students as provided in sub problem 6.

Data Collection Procedure

In conducting the study, the researcher asked permission from the target participant of College Students in Panabo City and explained the research aims.

1. The researcher informed the target citizens of the possible consequences giving them full knowledge of the potential risks and benefits to be used in this research.
2. This was done by providing informed consent. The informed consent catered to the protection of the respondents to their confidentiality by assigning codenames to each.
3. Upon the approval from the target participant to do the research and sign the informed consent, the researcher administered the questionnaires by sending a link of the survey questionnaire in Google form to the participants through Facebook or Messenger.
4. Further, the data will be collected and answered online. After such, the data will be tallied and subjected to statistical interpretation using appropriate statistical tools.

Research Instrument

The adapted questionnaires on Student Engagement from the Hart et.al.[9]study and E-Learning Perceptions from the Khan et.al.[10]study was utilized in this investigation. The items were modified to the study's requirements. The indicators were carefully scrutinized and improved after consultations with the adviser.

The first manuscript of the research instruments was forwarded to the research adviser for feedback and suggestions on enhancing it, with corrections included. Before it was ready for distribution and administration, final adjustments were made by adding the adviser's corrections, comments, and suggestions.

The scale below will be used to measure the Student Engagement:

Range of Means	Descriptive Equivalent	Interpretation
4.20 – 5.00	**Very High**	This means that students' satisfaction is very high.
3.40 – 4.19	**High**	This means that students' satisfaction is high.
2.60 – 3.39	**Moderate**	This means that students' satisfaction is undecided.
1.80 – 2.59	**Low**	This means that students' satisfaction is low.
1.00 – 1.79	**Very Low**	This means that students' satisfaction is very low.

On the other hand, the scale below will be used to measure the E-learning Perceptions:

Range of Means	Descriptive Equivalent	Interpretation
4.20 – 5.00	**Very High**	This means that students' satisfaction

		is very high.
3.40 – 4.19	**High**	This means that students' satisfaction is high.
2.60 – 3.39	**Moderate**	This means that students' satisfaction is undecided.
1.80 – 2.59	**Low**	This means that students' satisfaction is low.
1.00 – 1.79	**Very Low**	This means that students' satisfaction is very low.

Ethical Considerations

The core concerns of this study are college students who have experienced the e-learning perceptions that can affect their student engagement in education. The researchers will not force anyone to respond to or evaluate the questionnaire in surveying. The researchers will conduct an online survey to distribute the questionnaire to adhere to the COVID-19 health standards, especially the prevention of crowded situations. All responses will be kept personal to protect the participant's identity, and all remarks to be quoted will be encoded.

III. RESULTS AND DISCUSSIONS

Presented in this section are the discussions of the results obtained from the statistical treatments of the gathered data. Presented in the Table 1 is the interpretation for the levels of Student Engagement and E-Learning Perception in answer for the research questions 2 and 3.

Table I
INTERPRETATION FOR THE LEVELS OF IV AND DV

Range	Description	Interpretation
4.21-5.00	Very High	This means that students' satisfaction is very high.
3.41-4.20	High	This means that students' satisfaction is high.

2.61-3.40	Moderate	This means that students' satisfaction is undecided.
1.81-2.60	Low	This means that students' satisfaction is low.
1.00-1.80	Very Low	This means that students' satisfaction is very low.

The Table 2 on the other hand presents the interpretation for the extent of correlation between Student Engagement and E-Learning Perception.

Table II
INTERPRETATION FOR THE 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

The first research question asks for the demographic profile of the student respondents from different schools here in Panabo City. To answer, Table 3 presents the requested data.

Table III
DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Characteristics (n=101)	Level	Frequency	Percentage
Gender	Male	33	32.7%

	Female	68	67.3%
Year Level	1st Year	23	22.8%
	2nd Year	72	71.3%
	3rd Year	4	4.0%
	4th Year	2	2.0%
Program Field	Business and Finance	19	18.8%
	Criminology	5	5.0%
	Disaster Preparedness	3	3.0%
	Education	17	16.8%
	Engineering	3	3.0%
	Food and Health	7	6.9%
	Public Service	22	21.8%
	Technology	25	24.8%

The table shows that 101 students have responded to the survey. In terms of gender, 33 of the respondents are males, and 68 are females. Regarding year level, 23 are 1st-year students, 72 are 2nd-year students, 4 are 3rd-year students, and 2 are 4th-year students. In terms of the program field, 19 are from Business and Finance, 5 are from Criminology, 3 are from Disaster Preparedness, 17 are from Education, 3 are from Engineering, 7 are from Food and Health, 22 are from Public Service, and 25 are from Technology.

Continually, the second research question asks about the level of Student Engagement among College students in Panabo City in terms of Affective Engagement (Liking for Learning), Affective Engagement (Liking for School), Behavioural Engagement (Effort & Persistence, Behavioural Engagement (Extracurricular Activities), and Cognitive Engagement. Table 4 provides the answer to the question.

Table IV
LEVELS OF STUDENTS'ENGAGEMENT, n=101

Indicators	Mean	Standard Deviation
Affective Engagement (Liking for Learning)	3.8673	.73282
Affective Engagement (Liking for School)	4.1733	.85242
Behavioral Engagement (Effort & Persistence)	3.7468	.67185
Behavioral Engagement (Extracurricular Activities)	3.6676	.81444
Cognitive Engagement	3.9233	.82310
Students' Engagement	3.8757	.69653

As observed, the indicator with the highest mean score of 4.17 with a standard deviation of 0.85 is Affective Engagement (Liking for School). This means that the level of students' engagement in terms of affective engagement (liking for school) is high, which implies that the items of students' satisfaction are high. This result supports the literature of Fredricks, Blumenfeld, and Paris [14], which says that student engagement satisfies Affective engagement (liking for school) among students. People usually investigate how school curriculum and activities can increase intellectual engagement. It focuses on liking school, belonging, interests, and general learning enthusiasm.

On the other hand, the indicator with a mean score of 3.87 with a standard deviation of 0.73 is Affective Engagement (Liking for Learning). This means that the level of students' engagement in terms of affective engagement (liking for learning) is high, which implies that the items of students' satisfaction are high. This result affirms the idea of Martin and Bolliger[15], which says that engagement techniques are desired to provide positive learning experiences, including engaged learning opportunities. Such as participating in cooperative group work,

having learners facilitate exhibits and discussions, sharing resources actively, making course assignments with hands-on components, and integrating case studies and reflections.

Conversely, the indicator with a mean score of 3.75 with a standard deviation of 0.67 is Behavioural Engagement (Effort & Persistence). This means that the level of students' engagement in terms of *b*ehavioural engagement (effort & persistence) is high, which implies that the items of students' satisfaction are high. This result proves the idea of Cooper [16], which says that student-teacher interactions are crucial. Increased student behavioural engagement requires a strong, positive relationship between the student and the teacher. Connectedly, extended educational conversations and more substantial and sustained efforts to the class discussion are evidenced by teachers who enhance discussion and dialogic instruction [17].

In opposition, the indicator with a mean score of 3.67 with a standard deviation of 0.81 is Behavioural Engagement (Extracurricular Activities). This means that the level of students' engagement in terms of *b*ehavioural engagement (extracurricular activities) is high, which implies that the items of students' satisfaction are high. This result ascertains the idea of Wilson [18], which says that out-of-school activities trained participants in skills like collaboration and leadership while reducing the possibility of alcohol and illegal drug use and other problem behaviours. Participants in extracurricular activities often have higher grade point averages, lower absenteeism, and a stronger sense of belonging at school.

Meanwhile, the indicator with a mean score of 3.92 with a standard deviation of 0.82 is Cognitive Engagement. This means that the level of students' cognitive engagement is high, which implies that the items of students' satisfaction are high. This result confirms the idea of Meyer [2], which says that they feel that student involvement is essential to online learning. It demonstrates students' significant effort required for cognitive development and their natural potential to build their knowledge, resulting in high levels of student achievement.

Overall, the variable Student Engagement has a mean score of 3.88 with a standard deviation of 0.70. This means that the holistic level of Student Engagement is high which implies that the items of students' satisfaction are high. Connectedly, the literature says that student engagement has been seen to impact the emotional aspects of students, as indicated by both positive and negative interactions with teachers, classmates, academics, and school, and is considered to form bonds with an institution and impact ability to engage [19].

The third research question asks about the level of E-Learning Perception among College students in Panabo City in terms of Perceived Usefulness of E-learning, Perceived Self-Efficacy of Using E-learning, Perceived Ease of Use of E-learning, and Behavioural Intention of Using E-learning. Table 5 represents the data needed to answer the question.

Table V
LEVELS OF STUDENTS' E-LEARNING PERCEPTION, n=101

As reflected in the table, the mean score of the level of E-Learning Perception among College students in Panabo City in terms of Perceived Usefulness of E-learning is 3.97 with a standard deviation of 0.82. This means that the

Indicators	Mean	Standard Deviation
Perceived Usefulness of E-learning	3.9653	.81932
Perceived Self-Efficacy of Using E-learning	3.6370	.86423
Perceived Ease of Use of E-learning	3.7698	.82514
Behavioural Intention of Using E-learning	3.9142	.84413
Students' E-Learning Perception	3.8216	.73227

level of e-learning perception among College students in Panabo City regarding the perceived

usefulness of e-learning is high which implies that items of students' satisfaction are high. In connection, Ong, Lai, and Wang [20] say that as a significant indicator of the outcome, perceived usefulness, if e-learning methods are to improve learning outcomes, the introduction of these new technologies in general and e-learning methods in particular, is critical.

In preference, the mean score of the level of E-Learning Perception among College students in Panabo City in terms of Perceived Self-Efficacy of Using E-learning is 3.64 with a standard deviation of 0.86. This means that the level of e-learning perception among College students in Panabo City regarding the perceived self-efficacy of using e-learning is high, which implies that items of students' satisfaction are high. It relates to the idea of Johnson et al. [21]says that perceived information value, sense of accomplishment, and learning achievement were all predicted by student self-efficacy and perceived system usefulness.

Moreover, the mean score of the level of E-Learning Perception among College students in Panabo City in terms of Perceived Ease of Use of E-learning is 3.77, with a standard deviation of 0.83. This means that the level of e-learning perception among College students in Panabo City regarding the perceived ease of use of e-learning is high, which implies that items of students' satisfaction are high. It correlates to the idea of Khan et al. [10] which states that e-learning platforms are user-friendly, and they observed that through e-learning systems, we could easily access the necessary information.

Furthermore, the mean score of the level of E-Learning Perception among College students in Panabo City in terms of Behavioural Intention to use E-learning is 3.91, with a standard deviation of 0.83. This means that the level of e-learning perception among College students in Panabo City regarding the behavioural intention of using e-learning is high, implying that items of students' satisfaction are high. It correlates to the idea of Budu et al.[22] states that providing sufficient reason for the need to evaluate potential behavioural intention patterns is likely to influence the use of e-learning systems. They also concluded that student participation is crucial for a successful implementation of E-learning systems, necessitating the need to assess their behavioural attitudes.

Overall, the variable E-Learning Perception has a mean score of 3.82 with a standard deviation of 0.73. This means that the holistic level of E-Learning Perception is high which implies that items of students' satisfaction are high. In support, Dublas et al. [23] say that students are academically interested in an e-learning context, especially when there is a stable internet connection. Connectedly, another piece of literature says that a high level of academic interest is caused by the joint drives of emotional and cognitive interest. Further, educational interest will result in higher student achievement [24].

The fourth question asks for the significant difference in the level of student engagement among College students when grouped according to Gender, Year Level, and Program Field. Table 6 represents the data needed to answer the question in terms of gender.

Table VI
SIGNIFICANT DIFFERENCE OF THE STUDENTS' ENGAGEMENT WHEN GROUPED ACCORDING TO GENDER

Groups	Mean	SD	F	Sig.
Male	3.6426	.86054	5.747	.018
Female	3.9887	.57506		
Total	3.8757	.69653		

Since, *p*-value 0.018 < 0.05 then we reject the null hypothesis. There is a significant difference in the level of students' engagement when grouped according to gender. This means that gender variations do affect student engagement among College students.

Table 7 represents the data needed to answer the question in terms of year level.

Table VII
SIGNIFICANT DIFFERENCE OF THE
STUDENTS' ENGAGEMENT WHEN
GROUPED ACCORDING TO YEAR LEVEL

Groups	Mean	SD	F	Sig.
1st Year	3.9492	.47717	.132	.941
2nd Year	3.8550	.68029		
3rd Year	3.7871	1.86422		
4th Year	3.9501	.15236		
Total	3.8757	.69653		

Since, *p*-value $0.941 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of students' engagement when grouped according to year level. This means that variations of year level do not affect the level of Student engagement among College students.

Table 8 represents the data needed to answer the question in terms of program field.

Table VIII
SIGNIFICANT DIFFERENCE OF THE
STUDENTS' ENGAGEMENT WHEN
GROUPED ACCORDING TO PROGRAM
FIELD

Groups	Mean	SD	F	Sig.
Business and Finance	3.9381	.62090	1.506	.175
Criminology	3.7340	.65465		
Disaster Preparedness	4.0897	.52129		
Education	4.2046	.42469		
Engineering	3.1624	1.87531		
Food and Health	3.9522	.40242		
Public Service	3.8941	.57124		
Technology	3.6552	.83250		
Total	3.8757	.69653		

Since, *p*-value $0.941 > 0.05$ then we do not reject the null hypothesis. There is no significant difference on the level of students' engagement when grouped according to program field. This means that variations of program field do not affect the level of Student engagement among College students.

The fifth question asks for the significant difference in the level of e-learning perception among College students when grouped according to Gender, Year Level, and Program Field. Table 9 presents the data needed to answer the question in terms of gender.

Table IX
SIGNIFICANT DIFFERENCE OF THE
STUDENTS' E-LEARNING PERCEPTION
WHEN GROUPED ACCORDING TO
GENDER

Groups	Mean	SD	F	Sig.
Male	3.5751	.93126	5.819	.018
Female	3.9412	.58454		
Total	3.8216	.73227		

Since, *p*-value $0.018 < 0.05$ then we reject the null hypothesis. There is a significant difference on the level of students' e-learning perception when grouped according to gender. This means that gender variations do affect e-learning perception among College students.

Table 10 represents the data needed to answer the question in terms of year level.

Table X
SIGNIFICANT DIFFERENCE OF THE STUDENTS' E-LEARNING PERCEPTION WHEN GROUPED ACCORDING TO YEAR LEVEL

Groups	Mean	SD	F	Sig.
1st Year	3.8967	.54845	2.816	.043
2nd Year	3.8631	.72554		
3rd Year	2.8698	1.33207		
4th Year	3.3646	.10312		
Total	3.8216	.73227		

Since, *p*-value 0.043 < 0.05 then we reject the null hypothesis. There is a significant difference on the level of students' e-learning perception when grouped according to year level.This means that gender variations do affect e-learning perception among College students.

Table 11 represents the data needed to answer the question in terms of program field.

Table XI
SIGNIFICANT DIFFERENCE OF THE STUDENTS' E-LEARNING PERCEPTION WHEN GROUPED ACCORDING TO PROGRAM FIELD

Groups	Mean	SD	F	Sig.
Business and Finance	3.9002	.66025	1.347	.237
Criminology	3.7083	.65501		
Disaster Preparedness	3.6875	.68116		
Education	4.1238	.55319		
Engineering	3.0000	1.73205		
Food and Health	4.0625	.46925		
Public Service	3.7888	.54423		
Technology	3.6550	.90731		

Total	3.8216	.73227

Since, *p*-value 0.237 > 0.05 then we do not reject the null hypothesis. There is no significant difference on the level of students' e-learning perception when grouped according to program field.This means that gender variations do not affect e-learning perception among College students.

Finally, the sixth and last research question asks for the significant relationship between the students' engagement and the e-learning perception among college students in Panabo City. Table 12 provides the data needed to answer the research question.

Table XII
CORRELATIONS BETWEEN STUDENTS' ENGAGEMENT AND E-LEARNING PERCEPTION

Variables	Mean	SD	r-value	p-value
Students' Engagement	3.8757	0.69653	*0.861*	*0.000*
E-Learning Perception	3.8216	0.73227		

Table 12 shows the positive correlation between students' engagement and e-learning perception. Since, p-value is 0.000<0.05, then we reject the null hypothesis. There is a significant relationship between students' engagement and e-learning perception. With the r-value of 0.861, students' engagement and e-learning perception has very strong positive relationship. Therefore, identifying gaps in student engagement and the digital world can take numerous forms. In this era of higher education, interconnectivity is critical for bridging the gap between student dreams and realities [6].

IV. CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

Based on the findings of this research study, the following conclusions are as follows:

1. The results showed the respondents' demographic profile regarding gender, year level, and program field. And 101 college students have responded to this study.
2. The results were able to show a high level of student satisfaction and e-learning perception among college students in Panabo City.
3. The result shows a significant difference in the level of students' e-learning perception when grouped according to gender and year level.
4. The result shows no significant difference in the level of students' e-learning perception when grouped according to program field.
5. The results showed that students' engagement and e-learning perception have a strong positive relationship according to gender, year level, and program field.

Recommendations:

The following recommendations are generated with the integration of the findings of this present study.

1. The students should also be recommended to appropriate e-learning environments to add adapting instruction to reinforce learning goals since e-learning is considered motivation to enhance learning and improve student engagement.
2. Lastly, for future researchers, since students nowadays choose e-learning, a further study may be conducted. They should continue searching for more engagement techniques because it is the best way to make e-learning efficient for the institution and ensure student success as they continue pursuing a college degree.

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