# USEFULNESS, EASE OF USE, AND SYSTEM DESIGN FEATURE OF CANVAS LMS: PERCEPTION OF COLLEGE STUDENTS

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## ABSTRACT

**U**niversities and institutions have been forced to improvise and incorporate online learning to their learning environment because of the pandemic. One of the learning management systems used was Canvas, and college students of a private higher education institution adjusted to the shift from the in-person to online mode of learning. This study aimed to determine the effectiveness of the online learning platform as perceived by the college students. A total of 90 respondents participated in the survey with the use of a researcher-made instrument. The statistical tools that were used are the following: mean, standard deviation, frequency, Kruskal Wallis and Mann-Whitney U test. The results of this study revealed that the online learning platform is effective in terms of ease of use, usefulness, and system design features, with ease of use getting the highest mean score. There was no significant difference in the perceived effectiveness of online learning platform when students are grouped according to sex and academic major. It is recommended that the private education institution should regularly inform the Canvas developer the feedback of students regarding the system features of the platform to improve and provide an efficient learning environment for the students.

*Keywords: Usefulness, System Design Feature, Canvas*

## INTRODUCTION

### Background of the Study

Universities and institutions have been forced to improvise and incorporate online learning to their learning environment. The duration of the pandemic is unknown, so, the way institutions teach and engage with students this academic year will change. Redesigned methods of teaching will emerge, and all academics will have to adjust on how they implement new learning method of teaching. Shifting to a fully online learning environment requires a change in the position of the lecturer. The transition to online teaching creates changes in the teaching methods and design of the modules (Boling et al., 2012; Desai et al., 2009; Koehler & Mishra, 2009). This includes enabling and mixing of long and thorough learning experiences,

which creates the development of learning roadmaps to help students learn more effectively. The primary obstacle being faced by educational institutions is the modification of the different processes and habits. The vocabulary that has emerged to facilitate online education adds to the complexity. Asynchronous learning gives emphasis on the learner and relies on modular activities while synchronous learning is heavily reliant on the instructor and takes place in an online environment (Murphy et al., 2011).

E-learning is designed for a course or program that is offered entirely online. The faculty uses educational procedure for learning, learner's involvement, and evaluation that are limited towards the online environment (Bates, 2020). As stated by Tony Bates (2020), while studying online, students are required to have internet access for them to participate with teachers and other students. Learners use computers, tablets and other devices to access online learning. The online learning platform is flexible, which benefits both students and teachers. You can also change the due date if there is an extension when assigning a task. This online learning platform allows students to track when they take an exam and whether they are cheating or leaving a given task or quiz.

Based on a research study in Colorado Mountain College, it is crucial that private universities find out how these new learning management system affects the learner's experience. The satisfaction of learners is connected towards their achievements and recognition in an educational setting. Learners who are dissatisfied with a course or program can drop out or withdraw. Despite the fact that the learning management system used in college has reached the maximum percentile, the learners' experience towards the new environment systems is not interrelated. These institutions consciously aim areas by studying the association of learning management system and the learner's satisfaction.

Some students find the learning system to be difficult in terms of navigating the system while others find the options to be flexible and stable. There are also advantages and disadvantages in using the online learning tool like Canvas. Some of the advantages are great import functions, extremely flexible, and grading control as students will be aware of their grades on each course subjects. The disadvantages are sudden removal of assignments and technical issues that users face when recording media.

The purpose of this study is to show how effective the online learning platform is for the college students in a private higher institution. Upon finding it, the researchers hope to be more aware of the online learning platform that is being used by the institution.

### *General Objective of the Study*

This study aimed to determine the effectiveness of the online learning platform as perceived by the college students in a private higher education.

*Specifically, this study aimed to:*

1. Determine the level of effectiveness of the online learning platform as perceived by the college students when grouped according to sex and academic major.

2. Determine the level of effectiveness of the online learning

platform as perceived by the college students in terms of ease of use, usefulness, and system design features.

3. Determine if there is a significant difference between the level of the effectiveness of the online learning platform and the college students' sex and academic major.

### Hypothesis of the Study

Based on the foregoing objectives, the hypothesis was formulated as follows:

1. There is no significant difference in the perceived effectiveness of the online learning platform when college students are grouped according to sex and academic major.

### Theoretical Framework of the Study

This study was anchored on the Technology Acceptance Model (TAM) Theory by Fred Davis (1986). TAM is tailored for modelling user's acceptance of information systems and technologies (Lai, 2017).  TAM included two specific beliefs, perceived usefulness and perceived ease of use. Perceived usefulness is defined as the potential user's subjective likelihood that the use of a certain system will improve his/her action, and perceived ease of use refers to the degree to which the potential user expects the target system to be effortless (Davis, 1989). The development of the Technology Acceptance Model was aided by the theory of reasoned action, which anticipates a student's attitudes which is linked towards their existing behavioral objectives. The behavioral intention is an individual's desire to comply a given activity on which the person is able to adapt a system (Fishbein & Ajzen, 1975). Behavior is influenced by determining actions that are in an individual's beliefs system and control (Ajzen, 1991). Individual or group behavior approval or disapproval, as well as social standards and individual attitudes toward a behavior, are factors or constructions of the intention.

Students' ambitions, goals, and commitments can be iteratively affected by the college's structural systems, which can lead to attrition or perseverance. Researchers have shown a correlation between the performance and quality towards satisfaction of learners (Ruffalo Noel-Levitz, 2018).

The experience of using an online platform directly affects the users' decision making and as an outcome, it would be helpful for universities to have an idea about the elements which affect the learner's performance with the technology.

Observing students' reaction and behavior towards technology-enabled courses, enables educational institutions to better understand the student course satisfaction (Liaw, 2008). By following these practices, the implementation of the Learning Management Systems (LMS) will be much more effective in bringing out a higher-quality learning environment for students. Additionally, bringing forth the importance of the LMS technologies will help in designing a platform which focuses in a technological eccentric aspect. It is important for educational professionals to identify which is the best instrumental tool to implement for a more effective and stronger impact towards students and boost the course satisfaction (Arabie, 2016; Baghdadi, 2011).

### Conceptual Framework of the Study

Figure 1 shows the interplay of independent variables which include sex

and academic major, and dependent variable, effectiveness of Canvas LMS in terms of usefulness, ease of use, and system design features. Ease of use is a critical factor that influences e-learning behavior and viewpoint of an individual. People like to acquire a structure that is plain and easy to understand. It has a considerable outcome on the behavior of the learners and discerned usefulness. The model initiates that ease of use directly affects the Usefulness.   The perceived usefulness of a system has an advantageous impact towards the intentional behavior of an individual on how to utilize the system. In the context of e-learning, the perceived utility is "to the extent that students believe that e-learning systems help improve academic performance by improving the overall learning process and learning-related completion.

System design features includes the layout design, navigation, functionality, and overall structure of an application. The application Canvas is a system that administers different tasks in a virtual setting. It is created for the purpose of providing education with an intent to follow the normal face-to-face setup. One of its features is granting teachers the capability to evaluate student's performance and provide modular information and tasks.

The independent variables include sex and academic major. The dependent variable is the effectiveness of the online learning platform in terms of usefulness, ease of use, and system design features.
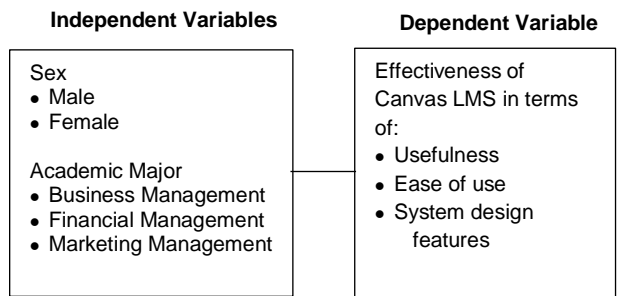
| Independent Variables | Dependent Variable |
|---|---|
| Sex<br>• Male<br>• Female<br><br>Academic Major<br>• Business Management<br>• Financial Management<br>• Marketing Management | Effectiveness of Canvas LMS in terms of:<br>• Usefulness<br>• Ease of use<br>• System design features |

Figure 1. Paradigm of the Study

### *Definition of Terms*

*Online Learning Platform.* The online learning platform is a website or platform that provides educational content and live instruction on a specific subject or a variety of topics (Ryan, 2020).

In this study, it refers to the Canvas Learning Management System used by the college students of a private higher education institution

*College student.* College student is defined as someone who is currently enrolled in a university (the free dictionary, 2021).

In this study, college student refers to third Year College students of  a private higher education institution who were the respondents of this study.

*Sex.* The sex is defined as two forms of individuals that are in different types of species which are particularly distinguished through their reproductive organs and genetic makeup (Merriam-Webster,2021).

In this study, sex refers to either male or female.

*Academic Major.* The academic major is defined as a college student's primary subject of study during  undergraduate education which include sections of a core curriculum (College Transfer, 2021).

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In this study, academic major refers to the major course of the Bachelor of Science in Business Administration student classified as Business Management, Financial Management, or Marketing Management

***Effectiveness.*** Effectiveness is defined as to which objectives are achieved. (Erlendsson, 2002).

In this study, effectiveness means achieving the desired result of the online learning platform in terms of usefulness, ease of use, and system design feature

***Usefulness.*** Usefulness is the quality of having utility or practical worth or practicality (Merriam Webster, 2022).

In this study, the quality of having utility or practical worth or practicality of the online learning platform.

***Ease of Use.*** Ease of use is defined as the primary notion that tells how readily customers utilize a product (IDF, 2021).

In this study, the ease of use tells how readily the students utilize the Canvas LMS.

***System Design Feature.*** The system design feature is defined as the process of outlining parts of a system, such as components and interfaces, based on the requirements (The Economic Times, 2021).

In this study, the system design feature refers to a structure, layout that involves the process of outlining parts of a system, such as     components and interfaces of the Canvas LMS.

### Significance of the Study

The results of this study will benefit the following groups of individuals:

***Administrators***. This study will help the administrators know the effectiveness of the existing online learning platform and also will serve as a basis for the improvement of the online learning platform for the students.

***Faculty.*** The faculty members shall become aware on the effectiveness of the existing online learning platform and will use the results of this study to improve and develop teaching contents and strategies.

***College students.*** This study can make the students aware of the effectiveness of the online learning platform.

***Canvas*** *LMS team.* This study shall significantly raise the awareness of the members of the Canvas LMS team on the implementation of the LMS program.

***Future Researchers.*** This study shall provide them with additional data and information about the effectiveness of the online learning platform for future studies.

### Scope and Limitation of the Study

This research study determined the effectiveness of the online learning platform as perceived by the college students of a private higher education institution. The independent variables were sex and academic major. The dependent variable is the effectiveness of the online learning platform in terms of usefulness, ease of use, and system design features. This study was limited to the third-year students in one private higher education institution. The respondents of this study were the 90 third year Business Administration students of Central Philippine University for the year 2021-2022 who were randomly selected to answer the researcher's questionnaire.

The data needed for the study were gathered through the use of researcher-made questionnaire validated by a panel of jurors and the data were from the selected

Business Administration Third year students of Central Philippine University for the year 2021-2022. The mean and standard deviation were used to describe the data gathered. For inferential statistics, Mann-Whitney U test and Kruskal Wallis were used at 0.05 level of significance. All statistical computations were processed through the use of Statistical Package for the Social Sciences (SPSS). This study investigated the effectiveness of the online learning platform as perceived by the third-year Business Administration students of Central Philippine University for the year 2021-2022.

## REVIEW OF RELATED LITERATURE

This Chapter presents the conceptual literature and studies related to the present investigation on the effectiveness of the online learning platform as perceived by the college students of a private higher education institution.

### *Online Learning or E – Learning*

Distance education has been made possible by rapidly increasing technology, allowing students to obtain higher education without leaving their homes. In a virtual classroom setting, synchronous conferencing techniques can provide chances for social engagement. They enable students and teachers to converse verbally, type messages, upload PowerPoint presentations, transmit video, and surf the web together. Adopting technology that allows for real-time voice and writing communication would certainly reduce the distance traveled while using asynchronous platforms. Beyond the issue of social interaction, we wanted to determine student-perceived strengths and weaknesses of using an online platform (McBrien et al., 2009).

Higher education institutions are becoming more cognizant of the diversity of their existing and potential students and are working to give a variety of interaction opportunities. That is, internal content is translated into a format that may be delivered externally. The one-size-fits-all strategy, on the other hand, has a big flaw for external students who feel or experience isolation. When opposed to their internal counterparts, these students confront a variety of obstacles that prevent them from fully participating in coursework modules. These challenges may not be encountered by people enrolled in these same units via face-to-face or blended enrolment modalities, presenting a new type of learner to consider when planning and implementing online learning activities. Many academic staff members have obstacles in the online world, since they are increasingly required to have higher levels of technology competency and expertise in addition to their regular academic burden (Gillet-Swan, 2017).

The World Health Organization (WHO) declared an outbreak caused by a sudden appearance of a disease (SARS-CoV-2) which affected people globally. This occurrence created a gap and hindered the system of educational institutions, requiring to transition to an online setting. As the best option remaining, E-learning came to the fore. The goal of this research is to uncover

engineering students' impressions of available e-learning platforms, hence exposing the underlying constraints (Dhawan, 2020).

As the globe continues to fight the virus's harmful spread, schools and other institutions of learning will inevitably be compelled to adapt to complete online learning. Online learning is a learning environment that employs the Internet and other technology devices and resources to deliver and manage academic programs in synchronous and asynchronous ways (Usher & Barak, 2020; Huang, 2019).

In the classroom, teachers can monitor students and change their pace to accommodate anyone who requires additional time. In an online learning setting, this is more difficult. Because reading body language digitally is more difficult, students may mute themselves or "put on a brave face," only to leave the session disheartened and frustrated, having learned nothing. Last on the list of issues faced by online platforms is the loss of many social characteristics as a result of taking the online road. In most degree programs, there are numerous opportunities for social engagement with classmates which had been lost (Klawitter, 2021).

According to Felce (2019) nowadays, to obtain a degree, it is no longer necessary to adapt your schedule to the scheduled times of on-campus courses. There are several tips that can help prepare for the unique learning environment of online classes. One way to manage time effectively is to create a schedule that includes time to read, study, attend class forums, and get things done. Setting these specific time periods during the week can prepare one to keep up with new material during the semester and help avoid having to struggle at the last minute. Using class forums allows a student to network with other students and meet potential classmates. Working with a partner is mutually beneficial; they are responsible for each other, the information is easier for them to digest, and the success of the course can feel closer than if they did it solo. As a bonus, they can make some friends.

According to Thomson (2015), director of online learning at Azusa Pacific University, it is beneficial for students to connect and communicate with their professors early and frequently. They had to make a note of important dates and deadlines at the beginning of the semester, so they can measure their progress during the semester. When they have identified the most important information, they could keep it where they can refer to it regularly.

Developing an online study and later an online school will not only foster understanding of the basics in electronics but will also provide a technology school right at the very homes of the clients (Salistre, et. al, 2001). The E-learning system is a significant tool in helping instructors, students, and department heads as they can manage and monitor classes online with facility, effectiveness, and efficiency (Cambronero, 2018).

### Canvas

Online-based learning has become a prominent topic of research due to the rapid rise of web technologies. Through the internet, portable devices have rapid connection to online applications and educational platforms. As a result, the needed information can be easily obtained via the internet.

Each institution's strategic vision is to improve teaching and learning. Given the situation, higher educational institutions quickly integrate and adapt the new mode of learning due to the rapid growth and availability of online learning classes. In recent decades, great investments have been made for the implementation and integration of communication technology through purchasing LMS (McGill & Klobas, 2009).

Canvas is an online platform that utilizes and integrates different learning strategies which focuses on the enhancement of a student's learning capacity and development without limiting the fun aspects of learning in an online setting. It is a user-friendly application which administers a simplified mode of teaching for the different users regardless of the kind of device they are using.

Since this is an era where technology is popular, educational institutions have been motivated to look into technological advancements that can them help adapt to this new LMS. The involvement of stakeholders and professors, according to the findings of these studies, is a critical aspect.

Remote teaching is a vital step to get through this COVID-19 pandemic since the virus has impacted the education system in all levels. As the new learning environment transitions from traditional set-up to the new online set-up, it encompassed multiple inhibitions and challenges towards the learning set-up of universities. This aims to focus on a new learning environment in a remote scenario that enables an effective teaching and interaction of teachers with their students (Bokzkurt and Sharma, 2020).

In this situation, careful planning is aimed at creating an effective learning ecology with four key elements: agency, flexibility, responsibility and choice. In this new set-up, it requires a process that includes approaches and competencies that are visible, so especially to study the impact in current emergency remote scenarios in this pandemic (Bokzkurt and Sharma, 2020).

Incorporated in the learning management system developed in the University are common methods used in regular classroom teaching environment which is made available online through the system. Course Curriculum, Assignments, Quizzes, Chatroom Sessions, Report Submission, and Class records reports are the major components implemented in the system (Quijano, 2014).

***System Design Features***

The application Canvas is a system that administers different tasks in a virtual setting. It is created for the purpose of providing education with an intent to follow the normal face-to-face setup. One of its features is granting teachers the capability to evaluate student's performance and provide modular information and tasks.

In recent years, the learners are more involved in the process of learning because the educational model has shifted from passive to active learning. The internet as an inter-connected network is trusted to enable active and interactive educational and learning processes. Mobile devices provide applications that support people's lives and are changing the way people learn and live. Advancement in technology enables users to communicate and obtain educational information. One of the digital media

available is the mobile version of Canvas to enhance education and learning.

Educational institutions are actively investing towards the adoption of an online education programs. Canvas's new mobile capabilities enable users for a more convenient and pocketable experience that allows learners access towards the different educational materials, take exams, and have group discussions with other students.

The Canvas by Instructure app is a mobile version of LMS that keeps students and teachers up to date on the course wherever they are. Canvas enables organizations to improve learning outcomes and increase student's efficiency towards the compliance of the course prerequisites. Canvas provides advanced learning materials that assist teacher and learner's involvement and extensive connectivity. The goal of the platform is to provide an easy-to-use system for the purpose of a student's success. Canvas helps users create a digital platform to fairly assess grades of learners in all levels. Canvas is suitable for supporting the teaching of various subjects in order to achieve more diverse results.

### The Technology Acceptance Model

The Technology Acceptance Model is an intellectual model applied to the corporate context. Using the theory of rational behavior as a basis, the model discovered unique factors such as perceived usefulness and ease of use that influences different attitudes towards the target system (Davis, 1993).

Individual opinions about the utility of usability elements are used by the model to determine attitudes and intent towards the use of new technology systems (Shin,

2009). According to TAM, an individual's judgment about the usefulness and ease of use of a new technology is the most important indicator of acceptance and intent to utilize it (Davis, 1993). At the heart of this approach is the premise of making decisions by considering the knowledge available to the end user and the intent to make reasonable decisions.

### Ease of Use

Ease of use is a critical factor that influences e-learning behavior and viewpoint of an individual. People like to acquire a structure that is plain and easy to understand. In an online setting, past studies have found a substantial link between discerned ease of use, utilization, and intentional behavior. Many research studies hypothesized that e-perceived learning's simplicity of use was a factor that affects online learning. Ease of use increased the goal of learners to utilize the online setting contingently through the discern of usefulness. It has a considerable outcome on the behavior of the learners and discerned usefulness. The model initiates that ease of use directly affects the usefulness.

### Usefulness

"The individual's belief towards the acceptance of utilizing a specific framework would help the work execution" according to Davis. Venkatesh claims the discern usefulness has a favorable impact on the learner's belief towards multiple solutions. The perceived usefulness of a system has an advantageous impact towards the intentional behavior of an individual on how to utilize the system. In the context of e-learning, the perceived utility is "to the extent that students believe

that e-learning systems help improve academic performance by improving the overall learning process and learning-related completion. Environment, desired schedule, perception towards education, and usefulness are all elements that influence perceived usefulness. It states that the belief of using a specific system enhances performance.

### Perception towards the Online Environment

In the behavioral literature, the connection of attitude and intent has been thoroughly studied. Existing studies consider attitudes as an important factor intended to reflect on a persons' holistic view of a behavior. Attitudes towards certain behaviors can be positive or negative which are often seen for complementing the definite attitude through the intent of performing the behavior. There are a lot of related articles which describe the relationship of student attitude towards the online learning environment. The positive relationship between attitudes and behavioral intentions associated with online setting is described in different literatures.

### Benefits of Online Learning

Educational institutions use online learning as a learning method for the delivery of learning materials. Educational institutions use the Internet to send data, materials, or learning content to students to take a substantial stride forward; educational institutions must believe that there are considerable benefits to using online learning. In addition, Borup & Evmenova (2019) found that the need for quality online instructors is particularly important in universities of training. Pettyjohn & LaFrance (2014) argues that technological advances put students at risk because many opportunities to gain credits and to comply with completion time give different forms for learning and evaluation. Existing online tutorials differ from traditional education in a number of meaningful ways. Online Learning Programs are designed for students of all ages, abilities, and backgrounds.

As online learning continues to build on the foundations of higher education, the presence of a strong teacher and commitment to supporting students should be a priority in online teaching pedagogy (Levy, 2017). Therefore, Sudarsana et al. (2019) suggested that e-learning development offers three options for developing an Internet-based learning system, namely: a web course, a web-centric course, a course, and a web-based course. Learning or e-learning is also inextricably linked to various advantages and disadvantages. But behind this, learning through e-learning is a great support in the current learning process.

Students who prefer self-regulation have found that online courses are beneficial in gaining knowledge (You & Kang, 2014). A student answered to online surveys in a Kirtman study; "It's more self-guided," she says of the curriculum, "so I can spend more time on the subjects that I'm learning. "I'd like some help with, and I'd like to focus on things that I can grasp quickly" (Kirtman, 2009). Self-regulated students show a proclivity for employing a variety of "cognitive and metacognitive strategies to achieve their learning objectives" (You & Kang, 2014,). Learners who can focus on one thing at a time regularly used time management and reviewed information as part of their self-regulated learning skills.

### *Synthesis*

With the related literature and studies, the researchers perceived that the use of technology helps students to obtain higher education without leaving their homes. Because of the rapid advancement of web technology, online-based learning has become a popular research area. Portable devices can connect to online apps and educational platforms quickly via the internet. E-learning refers to a course or program that is entirely delivered online. The faculty applies limited-to-the-online-environment educational procedures for learning, learner interaction, and evaluation. The context of e-learning systems helps to improve the academic performance of the students by improving the overall learning and learning-related completion. Learners access online learning via computers, tablets, and other devices. The online learning platform is flexible, which benefits both students and teachers. Remote teaching is a vital step taken in order to get through this COVID-19 pandemic since the virus has impacted the education system in all levels. As the new learning environment transitions from traditional set-up to the new online set-up, it encompassed multiple inhibitions and challenges towards the learning set-up of universities. Canvas is a software program that manages many tasks in a virtual environment. It was designed with the intention of offering instruction in a traditional face-to-face setting. One of its strengths is that it allows teachers to assess students' progress and deliver modular information and tasks. Also,

Canvas is an online platform that integrates and employs a variety of learning methodologies to improve a student's learning capacity and development while keeping the fun parts of learning in an online environment. One of the features of Canvas is granting teacher's capability to evaluate the performance of students and provide the modular information tasks. Canvas by Instructure is a mobile LMS that keeps students and teachers up to date on their courses no matter where they are. Organizations can use Canvas to improve learning outcomes and boost student efficiency in meeting course prerequisites. Canvas offers enhanced learning materials to support teacher and student participation and connectedness. The platform's mission is to deliver an easy-to-use solution that will help students succeed. Canvas allows users to construct a digital platform for grading students at all levels fairly. Canvas is well suited in assisting the teaching of a variety of subjects to reach more varied outcomes. Using technology that allows for real-time interaction would significantly reduce the distance traveled while using asynchronous platforms. The ease of use is a significant component that determines an individual's e-learning behavior and perspective. People prefer to get a framework that is simple and straightforward. Previous research has demonstrated a significant correlation between discerned ease of use, use, and purposeful behavior in an online setting.

## METHODOLOGY

### Research Design

In this study, the researchers utilized the descriptive method of research, specifically survey. This method is appropriate for the study since it aimed to know the effectiveness of the online learning platform of Central Philippine University. This study aimed to describe the respondents in terms of sex and academic major and to determine the effectiveness of the online learning platform as perceived by students of Business Administration of Central Philippine University.

### Sampling Design

Convenience sampling has been employed in choosing the sample size of 90 respondents. Since classes were held online, the researchers had difficulty in gathering the data, the reason they decided to use convenience sampling. This is a type of non-probability sampling that relies on data collection from population members who are conveniently available to participate in study (researchmethodology.net).

### Respondents of the Study

The respondents of this study were 90 selected 3rd year college students from department of business administration with majors in Business Management, Financial Management, and Marketing Management in a private higher education institution. Respondents must be enrolled in a particular private higher education institution for the academic year 2021-2022.

### Data Gathering Instrument

The researchers used a researcher-made questionnaire as a tool to gather data on the effectiveness of the online learning platform as perceived by the students of a private higher education institution. The questionnaire consists of two parts: Part I determines the personal information such as name (optional), academic major and sex of the respondents. Part II includes items to measure the effectiveness of the online learning platform in terms of usefulness, ease of use, and system design features as perceived by the students of a private higher education institution.

The following scale was used to guide the respondents in answering the questionnaire.

| Response | Description |
|----------|-------------|
| 5 | Highly Effective |
| 4 | Effective |
| 3 | Moderately Effective |
| 2 | Slightly Effective |
| 1 | Not Effective |

### Content Validity of the Questionnaire

Content validity is defined as "the extent to which the items in the device reflect the content universe in which the device is generalized" (Straub, Boudreau et al. 2004).

The submitted research-made questionnaire had undergone content validation by a panel of three experts in the field of research. Corrections and recommendations were followed for the improvement of the instrument.

### Reliability of the Questionnaire

Reliability refers to the degree of consistency in measurement and the lack of error. There are several types of indices of reliability (Gidron, 2013).

The researchers distributed the questionnaires to the 90 selected third year Business Administration students of a private higher education institution. The data were tabulated and analyzed using Cronbach Alpha set at 0.07. The reliability test results were at r= 0.929, which indicates a high level of internal consistency of the scale with this specific sample. The final instrument composed of 30 questions.

### Data Gathering Procedure

Researchers sent the questionnaires through google forms to the students of a private higher education institution for them to answer. The researchers collected the data from the questionnaire in the google forms and the answers of the respondents were calculated and underwent data analysis.

### Ethical Considerations

Ethics allow researchers to work cooperatively on their study with the help of their teacher, peers, and others with experience in the study. This ethical consideration necessitates that all parties involved in the study should be held accountable, have mutual respect, and be treated fairly.

The following ethical considerations were put into place for the research period:

1. The integrity and welfare of the respondents were respected and protected.

2. Throughout the study, the researcher kept the research data confidential.

3. The respondents were not subjected to any physical or mental distress.

4. The participants were given the knowledge and information regarding the study that is being conducted.

5. All participants may withdraw from or refuse to participate in the study at any time without feeling obliged to continue.

### Statistical Data Analysis

The data obtained in this study were subjected to the following descriptive analysis using the Statistical Package for the Social Sciences (SPSS).

*Mean.* The obtained mean scores were used to determine the general description of the level of satisfaction with the factors.

*Standard Deviation.* To determine the dispersion of the means the standard deviation was used.

The following scale of means and their corresponding descriptions were utilized.

| Mean Score | Description |
|---|---|
| 4.51-5.00 | Highly Effective |
| 3.51-4.50 | Effective |
| 2.51-3.50 | Moderately Effective |
| 1.51-2.50 | Slightly Effective |
| 1.00-1.50 | Not Effective |

*Mann-Whitney U test.* This was used to find out the significant differences existing in two categories of the variables, the Mann-Whitney U test were used.

*Kruskal Wallis.* This is to determine the significant differences existing among there (3) or more categories of the variables, the Kruskal Wallis set at 0.05 alpha were used.

## PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter presents the findings of the study, results, and the corresponding interpretation. The profile of the respondents which refers to independent variables are explained as well as the dependent variables which are factors of the study.

### *Profile of the Respondents*

The respondents of the study are the 90 third year Business Administration students of a private higher education institution. The respondents were classified according to sex and academic major. The convenience sampling was employed in the selection of the final respondents. The categories were also determined.

Table 1 shows the distribution of respondents according to selected variables.

The respondents were categorized as either male or female and according to academic major: Business Management, Financial Management, and Marketing Management. Out of the 90 respondents, 36.7% are male and 63.3% are female. In terms of academic major, the respondents are equally distributed among the Business, Financial, and Marketing Management majors, respectively (33%).

**Table 1**
*Distribution of the Respondents*

| Category | Frequency | Percentage |
|---|---|---|
| **Entire Group** | 90 | 100.0 |
| **Sex** | | |
| Male | 33 | 36.7 |
| Female | 57 | 63.3 |
| **Academic Major** | | |
| Business Management | 30 | 33.3 |
| Financial Management | 30 | 33.3 |
| Marketing Management | 30 | 33.3 |

The data in Table 2 show that the online learning platform CANVAS is perceived to be Effective by both sexes, with a mean of 3.94 and a standard deviation of 0.67 for the male, and a mean of 4.17 and a standard deviation of 0.53 for the female. When grouped according to academic major, the result shows that the online learning platform is perceived as Effective by all majors as shown in their respective mean and standard deviation: Marketing, (M=3.93, SD=0.56), For Business, (M=4.22, SD=0.53), and For Finance, (M=4.12, SD=0.67).

**Table 2**
*Level of Effectiveness of the Online Learning Platform as perceived by College Students when grouped according to Sex and Academic Majors*

| Independent Variable | M | SD | Interpretation |
|---|---|---|---|
| **Sex** | | | |
| Male | 3.94 | 0.67 | Effective |
| Female | 4.17 | 0.53 | Effective |
| **Academic Major** | | | |
| Marketing | 3.93 | 0.56 | Effective |
| Business | 4.22 | 0.53 | Effective |
| Finance | 4.12 | 0.66 | Effective |

Furthermore, according to college students, the online learning platform CANVAS is effective in terms of ease of use which posted the highest mean (M=4.19), followed by usefulness (M=4.17), and system design features (M=3.90). The online learning platform is effective with an overall mean of 4.09 as presented in Table 3.

**Table 3**
*Level of Effectiveness of the Online Learning Platform as perceived by College Students*

| Dependent Variables | Mean | Description |
|---|---|---|
| Usefulness | 4.17 | Effective |
| Ease of Use | 4.19 | Effective |
| System Design Features | 3.90 | Effective |
| Overall effectiveness | 4.09 | Effective |

In terms of usefulness, the mean of each question was identified using the descriptive analysis. The question with the highest mean is "Protect student personal information" (M=4.39). This implies that the students have confidence in the usefulness of the Canvas Learning Management System in terms of protecting student personal information as evidence by the highest mean score in this particular dimension. Furthermore, results shown in Table 4 indicate that the item, "Improve interaction with teachers" had the lowest mean score (M=3.80).

**Table 4**
*Level of Effectiveness of the Online Learning Platform in terms of Usefulness*

| Usefulness | Mean | Description |
|---|---|---|
| 1. Protect student personal information | 4.39 | Effective |
| 2. Track student performance | 4.23 | Effective |
| 3. Assess student learning | 4.10 | Effective |
| 4. Monitor tasks and activities | 4.33 | Effective |
| 5. Inform students about course tasks and activities | 4.38 | Effective |
| 6. Improve interactions with teachers | 3.80 | Effective |
| 7. Share learning materials | 4.17 | Effective |
| 8. Improve the quality of learning | 3.94 | Effective |
| 9. Enhance goal-oriented discussions | 4.09 | Effective |
| 10. Provide new ways of learning | 4.27 | Effective |

In terms of ease of use, the mean of each question was identified using the descriptive analysis. "Accessibility of published courses" got the highest mean (4.41), implying that students find it easy to access the published courses, as they are being displayed in the dashboard of the students' Canvas. Table 5 further shows that the item, "real-time notifications" had the lowest mean (M=4.02) which may imply that there might be delays in receiving notification, and students are informed late regarding announcements, assignments and quizzes.

**Table 5**
*Level of Effectiveness of the Online Learning Platform in terms of Ease of Use*

| Ease of Use | Mean | Description |
|---|---|---|
| 1. Accessibility of navigation menu | 4.24 | Effective |
| 2. Compatibility with any mobile devices | 4.09 | Effective |
| 3. Compatibility with other online platforms (e.g. Gmail, etc.) | 4.29 | Effective |
| 4. Real-time notifications | 4.02 | Effective |
| 5. Accessibility of uploading files | 4.13 | Effective |
| 6. Organization of navigation buttons | 4.10 | Effective |
| 7. Ability to import or export files | 4.24 | Effective |
| 8. Accessibility of published courses | 4.41 | Effective |
| 9. Availability of help menu | 4.11 | Effective |
| 10. Clarity of instructions in Canvas guides | 4.27 | Effective |

Table 6 shows the effectiveness of system design features, and their respective mean was identified using the descriptive analysis. "Canvas calendar feature" (M=4.32) received the highest mean that implies that most students considered the Canvas Calendar feature as effective. Although all items in this category are perceived as effective, but the Canvas Calendar feature is the most-rated item. Furthermore, the Video-conferencing feature using the Big Blue button has the lowest mean of 3.19. This implies that students and teachers do not frequently use this feature, and they might be using other platforms for video conferencing.

**Table 6**
*Level of Effectiveness of the Online Learning Platform in terms of System Design Features*

| System design features | Mean | Description |
|---|---|---|
| 1. Automatic assignment/quiz checker | 4.02 | Effective |
| 2. Discussion board feature | 3.94 | Effective |
| 3. Video-conferencing feature (BigBlue button) | 3.19 | Effective |
| 4. Messaging tool (inbox and chat) | 3.86 | Effective |
| 5. Class notebook feature | 3.42 | Effective |
| 6. Self-enlistment for group activities | 3.73 | Effective |
| 7. Data privacy and account security | 4.21 | Effective |
| 8. Canvas Calendar feature | 4.32 | Effective |
| 9. File sharing through Google Drive integration | 4.08 | Effective |
| 10. Analytics for student performance | 4.23 | Effective |

### *Inferential Data Analysis*

The significant difference in the level of effectiveness of the online learning platform as perceived by the college students when grouped according to sex was determined using the Mann-Whitney U test set at 0.05 level of significance, and when grouped according to academic major the Kruskal Wallis set at 0.05 level of significance was utilized.

Table 7 shows the Mann-Whitney U test computation indicating that the significance is 0.14 which is higher than the level of significance at 0.05, that means there is no significant difference in the effectiveness of online learning platform as perceived by college students ($p=0.14$) when grouped according to sex. The null hypothesis, therefore, should not be rejected. Regardless of the sex of respondents, the perceived effectiveness of the online platform does not vary.

**Table 7**
*Mann-Whitney U test results on Level of Effectiveness of the Online Learning Platform as perceived by College Students when Grouped according to Sex*

| Sex | U-value | P-value | Remarks |
|---|---|---|---|
| | 766 | 0.14 | Not significant |

*p>0.05 significance at 0.05*

Table 8 shows the results of Kruskal Wallis computations which revealed a significance of 0.16 which is higher than the level of significance set at 0.05. This implies that there is no significant difference in the effectiveness of online learning platform as perceived by college students when grouped according to academic major ($x^2=3.70$, $p=0.16$). The null hypothesis, therefore, should not be rejected. Regardless of the academic majors, the effectiveness of online learning platform remains the same.

**Table 8**
*Kruskal Wallis results on the Level of Effectiveness of the Online Learning Platform as perceived by College Students when Grouped according to Academic Majors*

| Academic Major | Chi-Square | df | P-value | Remarks |
|---|---|---|---|---|
| | 3.70 | 2 | 0.16 | Not significant |

p>0.05 significance at 0.05

## SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the summary of findings, conclusions, and recommendations of the study.

### Research Summary

This descriptive research aimed to identify the effectiveness of the online learning platform as perceived by third year Business Administration students of a private higher education institution (HEI). Significant differences in the effectiveness of online learning platforms were identified when respondents were classified according to sex and academic major. It was revealed that the online learning platform is perceived to be effective by college students.

Respondents of the study were the third-year college students of a private higher education institution for school year 2021-2022. From the total population divided by three academic majors, 90 respondents were chosen through convenience sampling. Data were gathered through Google Forms.

The researcher-made-questionnaire consisted of questions that described the effectiveness of online learning platform in terms of usefulness, ease of use, and system design features as perceived by third year college students of a private higher education institution (HEI).

The data gathered from the researcher's questionnaires were analyzed using the mean, frequency, percentage, and standard deviation for the descriptive statistics. For inferential statistics, Mann-Whitney U test and Kruskal Wallis were used.

### The following are the findings of the study:

1. Majority of the respondents are female (63.3%), and in terms of academic major, the respondents are equally distributed (33.3%) among Business Management, Financial Management, and Marketing Management, respectively.

2. Generally, the level of effectiveness of the online learning platform was perceived to be "effective" (M=4.09) by third year college students in a private higher institution.

3. When respondents were grouped according to sex and academic major, the level of effectiveness of the online learning platform was perceived to be "effective".

4. Online learning platform is effective with "ease of use" getting the highest mean ($\mu$=4.19), followed by usefulness ($\mu$=4.17), and system design features ($\mu$=3.90). In terms of usefulness, "Protect student personal information" got the highest mean ($\mu$=4.39) while "improve interaction with teachers" received the lowest mean score (M=3.80). In terms of ease of use, "Accessibility of published courses" got the highest mean ($\mu$=4.41) while "Real-time notifications" had the lowest (M=4.02). Furthermore, for system design, the "Canvas calendar feature" received the highest mean ($\mu$=4.32) while "Video-conferencing feature using the Big Blue button" had the lowest mean (3.19).

5. The results for significance of Mann-Whitney U test (p=0.14) and Kruskal Wallis (p=0.16) were higher than the level of significance (0.05), therefore, there was no significant difference in the effectiveness of online learning platform perceived by students when they are

grouped according to sex and academic major.

### Conclusions

In view of the foregoing findings, the following conclusions are hereby drawn:

1. The online learning platform Canvas is effective as perceived by third year Business Administration college students in a private higher institution.

2. Majority of Business Administration students in a private higher education institution are female, and the respondents were equally distributed to the three academic majors of Business Administration.

3. Canvas is mostly effective in terms of ease of use. In addition, students have confidence that their personal information in Canvas is safe as evidenced by the high mean score pertaining to protection of personal information. The issues on real-time notifications imply delays in receiving notification, and students are informed late regarding announcements, assignments and quizzes. Although Canvas calendar feature was found by students to be effective but the video conferencing was perceived by students as not effective, thus, most online classes of the private HEI are conducted using a different platform.

4. The hypothesis of the study that there is no significant difference in the perceived effectiveness of the online learning platform when college students are grouped according to sex and academic major is, therefore, accepted.

### Recommendations

Base on the conclusions made, the following recommendations are hereby presented:

1. Canvas should continue the development of its system design features in order to improve the user experience. The private education institution should regularly inform the Canvas developer about the feedback of students regarding the system features of the platform for them to improve and provide a conducive learning environment for the students.

2. Other educational institutions should consider using the online learning platform Canvas in order to enhance the learning environment for their students.

3. Since this research study primarily focused on the effectiveness of the online learning platform, the researchers should consider further studies to fully understand the situation of online learning towards educational institutions.

4. Future researchers should explore the study on the effectiveness of other online learning platform.

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