Measuring the Success of Moodle at the University of Belize

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Abstract

As information technology becomes more prevalent and sophisticated, some educational institutions in Belize have begun to implement e-learning for students at the university level. This research utilized Delone & Mclean's information success system (D&M ISS) model to evaluate the success of Moodle at the University of Belize (UB), Belmopan Campus. Questionnaires handed out to UB students were based on the following constructs in the D&M ISS model- Information Quality, System Quality, Complimentary Technology, Self-Efficacy Measure, Service Quality, User Satisfaction, Use, and Perceived Net Benefits. The eight constructs used helped to get a better understanding of Moodle's success. Most respondents had good complimentary technology and could use Moodle without much assistance, a trend which is not common in developing countries. Although there were positive results related to those two constructs, most students did not believe that Moodle has substantial net benefits. Overall, the Moodle platform still has the possibility to be enhanced at the University of Belize in order to further serve educators and learners.

Keywords: Moodle, Information Systems (IS), Perceived Net Benefit, University of Belize, Learning Management Systems (LMS)

Introduction

E-learning systems are considerably changing education and organizational training. (Sorgenfrei, C., & Smolnik, S., 2016). With recent advancements in technology, many learning institutions around the world, especially tertiary level schools, have been implementing e-learning systems as an educational supporting tool. Likewise, e-learning has created an ICT-based learning environment by converting the traditional classroom into an online/digital classroom for both lecturers and students. The rapid development of information systems (IS) and internet technology has brought many educational innovations that can eliminate the boundaries of conventional teaching and learning. However, universities and their members including students are still experiencing challenges in understanding how to access e-learning practically and what type of direct benefits can be gained before e-learning can be implemented at their universities (Mon Mon The, & Usagawa, T. 2018). Despite the implementation of e-learning systems and the impact it has on education today, many learning institutions and their users still find it difficult to adopt.

Created by Martin Dougiamas in 2002, Moodle E-learning Information System is an online academic platform designed to provide educators, administrators, and learners with a single robust, secure and integrated system to create personalized learning environments. While creating Moodle, Dougiamas aimed to assist lecturers with the tools to communicate and provide online educational courses digitally in an efficient and effective manner. The University of Belize consists of over 4,000 students of which all can access Moodle. This information system is convenient for all since it is hosted on cloud. Therefore, this allows students and lecturers to access Moodle at anytime and anywhere. All that it requires is internet access and a laptop or mobile device. Yet, like other e-learning systems, Moodle is also one that is not used by many in other institutions in Belize.

With that, the purpose of this research is to measure the success of the Moodle Online E-learning Platform used by the University of Belize, Belmopan Campus. This research will prove useful in determining whether or not the information system is efficient in terms of communication between students and the institution, more specifically the lecturers. Upon receiving the data, Moodle's administration team will be enabled to pursue and establish possible ways of improving the effectiveness and efficiency of the information system, thus making it more convenient for both the students and the lecturers to use.

Literature Review

According to Laudon (2016), information system is a set of interrelated components that collects, processes, stores and distributes information; it supports decision making, coordination and control in a business. Information technology is vital for businesses in today's generation because businesses are constantly looking for ways to become more innovative and revolutionary. This research will elaborate on how the University of Belize (UB) utilizes information system as a mean of enhancing learning; thus, it is essential to first fully comprehend the meaning of information system.

McGill and Klobas illustrate the importance of information technology in different universities through the adaptation of learning management systems (LMS) to support teaching and learning processes. LMS facilitates e-learning by processing, storing and disseminating educational material with administration support regarding communication linked with teaching and learning. E-learning tends to show higher academic outcomes for e-learning students when compared to other learning environments (McGill & Klobas, 2009). Alias and Zainuddin's research measured the success of the International Islamic University Malaysia LearningNet System. This system is programmed to appoint appropriate learning resources such as the provision of easy access to subject material as well as interaction between students and lecturers. Ultimately, the system is similar to UB's Moodle learning system and proved to be

successful by enhancing students' ability in using technology (Alias & Zainuddin, 2005). LMS allows delivery of scientific material and keeps track of learning, communication, registration processes, and study schedules. Therefore, it is seen as an integrated system for the management of the educational process, in whole or in part, via the internet (Cavus, Nadire, 2009, p248).

Meanwhile, Huseinn's research concludes that e-learning should not only be a set of courses on websites but rather learning activities in educational institutions for implementation and evaluation. A mixture of online classes and face-to face classes, also known as blended courses, would be the most feasible way to facilitate learning. Huseinn introduced the "JUSUR" e-learning which was established, in cooperation with international experts, avoiding the most common defects and problems in LMS (Huseinn, 2011). Advantages associated with the JUSUR E-learning system includes inserting and managing students' data, scheduling courses by developing plans to teach students, delivering information, tracking students performance and producing reports, communicating with students via different platforms, conducting students test, and dealing with student assessments. LMS is more efficient and effective if it is equipped with a collaborative learning tool. There has been sufficient research with positive attitudes towards using JUSUR for the management of e-learning. (Huisenn, 2011).

Yakubu and Dasuki (2018) used a modified Delone and McLean's information systems success (D&M ISS) model to determine the success factors responsible for student's adaptability to Canvas e-learning system in a private Nigerian university. They omitted the net benefit construct proposed in D&M ISS model. The study was based on the assumption that system quality, service quality and information quality are determinants of user satisfaction and behavioural intention to use Canvas. Similar to the D & M ISS model, a quantitative method was used to collected data. The responses from the online survey was then analyzed using SPSS statistics 21.0 and AMOS version 21.0, suggested by Anderson and Gerbing (1988). The findings showed that there was not enough user satisfaction, although students believed that the system was of good quality. The context of this study was in a mandatory setting meaning that the students were not given the option to choose whether or whether not they wanted to adopt e-learning (Yakubu & Dasuki, 2018).

There are several LMS that can be used by teachers and students to enhance learning. Kakasevsk et al. focused their paper on the usability evaluation of standard modules in Moodle. They utilized an experience-based evaluation for web applications in four different universities. The evaluation was a combination of heuristic evaluation, questionnaires and task-driven techniques. Heuristic evaluations were conducted by a small group of evaluators to collect usability problems. Questionnaires and task-driven techniques were utilized for administrators, professors, teaching assistants, and students to express their opinion about the usability. The quantitative and qualitative data and expert opinion gathered recommends Moodle to all users of the system- administrators, teachers and students. Results indicate that the Moodle system is compact, coherent, and user friendly (Kakasevski et al., 2008).

Similarly, Mwalumbwe and Mtebe developed and used Learning Analytics tool to determine factors that influence student performance at a university in Tanzania, Africa. The Learning Analytics tool determined the factors that impact student performance. They found that students who completed forum posts, peer interactions, and exercises had good learning performance. While, the number of downloads, login frequency, and time spent in the LMS had no impact on students' performance. One of the limitation from this study was that they based their methodology on quantitative results obtained from data stored in the Moodle database. Qualitative methods such as focus groups and evaluation could have been conducted (Mwalumbwe & Mtebe, 2017).

The past studies mentioned above evaluate the level of efficiency and additional services that could be provided by learning management systems. The literature makes reference to developing countries and presents the results of the LMS system being used. The research done by Yakubu and Dasuki points out that the omission of the net benefit construct was labelled as a limitation in their study. Thus, when

measuring the success of Moodle at UB all constructs from D&M ISS model will be utilized. Additionally, students at the Nigerian university were obligated to take online classes instead of choosing if they wanted to. This could have been the reason why users were not satisfied, yet found Canvas to be of good quality. Contrary, students at UB can voluntarily take courses online so results of user satisfaction at UB may vary or stay constant from previous research. Each study in this literature focusses only one specific LMS; however, if students, professors and administrators adopt a different e-learning system, outcomes could be different. A key takeaway is that the final success of Moodle at the University of Belize cannot be generalized to all universities in Belize since a number of factors need to be taken into consideration.

Research Model/Hypothesis

DeLone and McLean proposed that the dependent variable for information system research is Information System Success. The Information Success Model is a concept that provides comprehension of IS success by determining six of the most important components (DeLone & McLean, 1992, 2003, 2004). The framework is one of the most cited and talked about models in IS history. Technology continues to evolve and the framework has been improved to meet the change in demand of several information systems. Throughout the years of 2002 and 2003, DeLone and McLean reassessed the model's current components namely: systems quality, information quality, service quality, use, user satisfaction, and net system benefits.
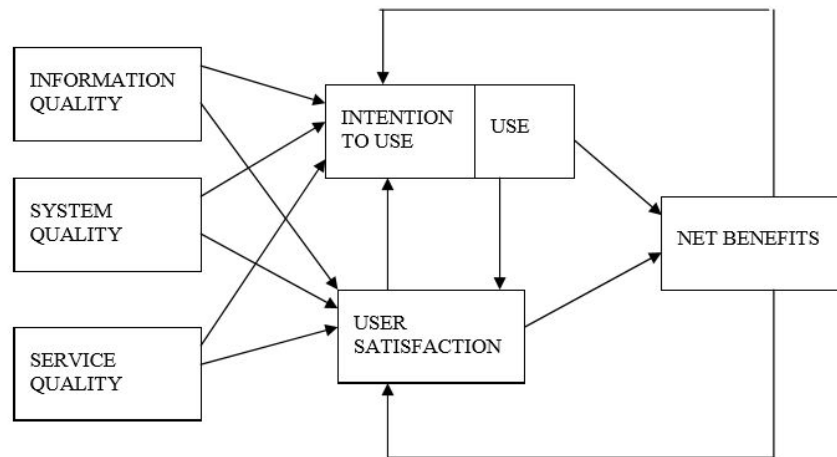
Figure 1. Updated D&M IS success model (DeLone & McLean, 2003, 24).

Service quality is measured in terms of the quality of support rendered by the information system's developer. Studies have assessed this, using service quality dimensions, such as assurance and responsiveness by the systems support department, as well as the provision of user training. In this study, service quality was measured by the response received in the Computer Efficacy section (5) and the Service Quality section (6).

System quality is said to measure the desirable characteristics of an information system. Several IS studies have measured this using such characteristics as perceived ease of use, system features, response time, and flexibility. This study assessed system quality by analyzing the usage of Moodle by students, found in section 3 of the questionnaire. Information Quality has to do with content issues and characteristics of the information systems output. It has been measured by examining the output of an information system in terms of timeliness, accuracy, reliability, and trustworthiness. This study operationalized information quality in terms of the timeliness, relevancy, sufficient and up to date information that can be found in Moodle by students (Section 1 of the questionnaire)

User satisfaction is considered as one of the most important measures of systems success, often measured by overall user satisfaction. It was assessed in the study by capturing overall positive attitude towards the information system, perceived utility of the system and expectations method (section 7 of the questionnaire)

Net benefits is also regarded as one of the most important measures of IS success, and it constitutes the extent to which an IS contributes to the success of various stakeholders, whether positive or negative. It has been measured by sometimes assessing individual impact or organizational impact. This study, however, examined net benefits as perceived net benefits, since students have not finished their degrees so the total impact of Moodle has not been completed. Benefits such as perceived money saved, improved academic performances and improved teaching were analyzed in section 9 of the questionnaire.
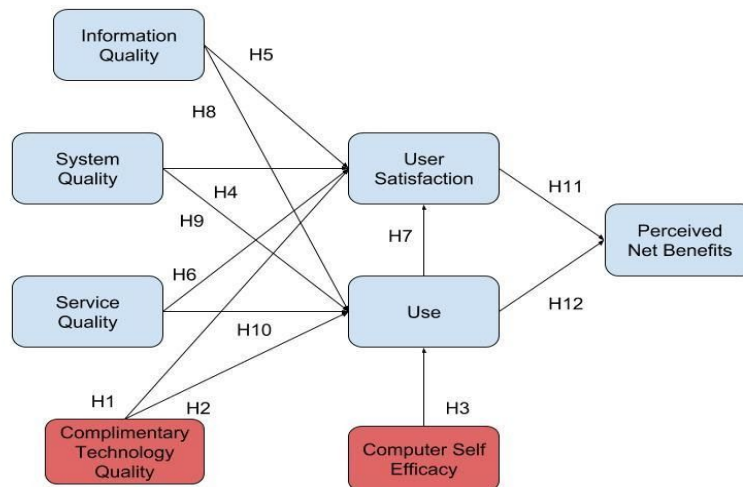
Figure 2: Hypothesis

Commensurate to the D&M Model, the study presents the following twelve (12) hypotheses:

H1. Complementary technology quality will positively impact user satisfaction.
H2. Complementary technology quality will positively impact system use.
H3. Computer self-efficacy will positively impact system use.
H4. System quality will positively impact user satisfaction.
H5. Information quality will positively impact user satisfaction.
H6. Service quality will positively impact user satisfaction.
H7. Use will positively impact user satisfaction.
H8. Information quality will positively impact use.
H9. System quality will positively impact use.
H10. Service quality will positively impact use.
H11.User satisfaction will positively impact perceived net benefit.
H12.Use will positively impact perceived net benefit.

Methodology

This study was conducted to evaluate how successful has the Moodle System at the University of Belize, Belmopan Campus has been. The focus of the research was on the Information Quality, System Quality

and Service Quality of the Moodle System. Data was gathered by using the quantitative approach using the survey method. 30 students were chosen using convenience sampling. This method was used due to Covid-19 pandemic and the accessibility of students was limited. Six students of each Faculty at the University of Belize, Belmopan Campus were selected as participants for the survey.

Quantitative Research is used to quantify the problem by way of generating numerical data or data that can be transformed into usable statistics. It is used to quantify attitudes, opinions, behaviors, and other defined variables – and generalize results from a larger sample population (Defranzo, 2011). The survey consisted of 42 close ended question, divided into nine different sections. The questionnaires were issued via face to face, using a seven-point response scale. By using a rating scale, participants were able to easily reply. Based on the degree of agreement or disagreement to each question, the questionnaire gave a number reply; one being the lowest and seven being the highest in agreement.

The study utilizes both first hand and secondary data. Secondary data was analyzed from past published reports. More importantly, first hand data were obtained via the 30 respondents of the questionnaire that were issued. Before the analysis took place, data was prepared and gathered via Google Sheets. The results of the gathered data were then tabulated and presented in graphs/diagrams.

Data Analysis

The data for this research was collected at the University of Belize, Belmopan Campus. A total of 30 questionnaires were distributed and collected. Google sheets were used to analyze the results by coding each construct. A 7 point Likert scale was used which consisted of questions ranging from strongly disagree to strongly agree. The methodology used in the data results and analysis is applied research.
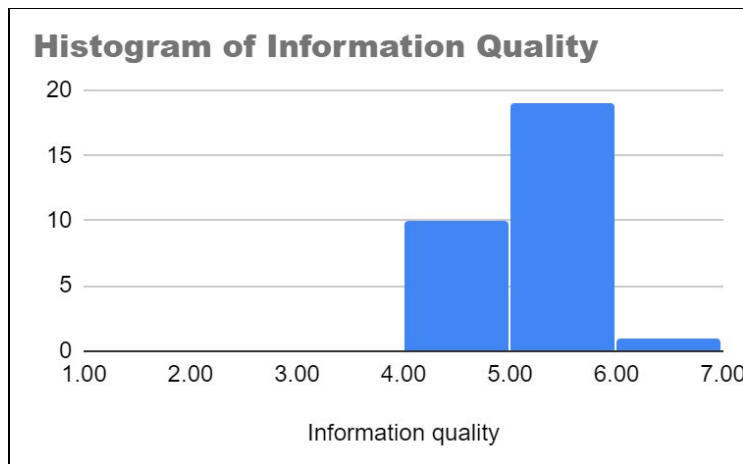
Figure 1. Histogram of Information Quality

Figure 1 shows the responses for information quality of moodle at UB. Most students feel satisfied with the information provided by moodle since the majority rated it between 5 and 6 which close to strongly agree.
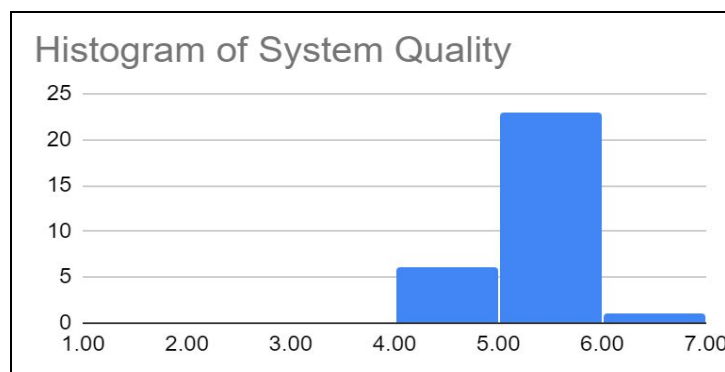
Figure 2 shows histogram of system quality

Figure 2 shows the responses for system quality in terms of information access, ease of use and interactive features that Moodle offers. Majority of students rated system quality between 5 and 6 which indicates that the system is adequate. None of the respondents rated it below 4.

Histogram of Complimentary Techology
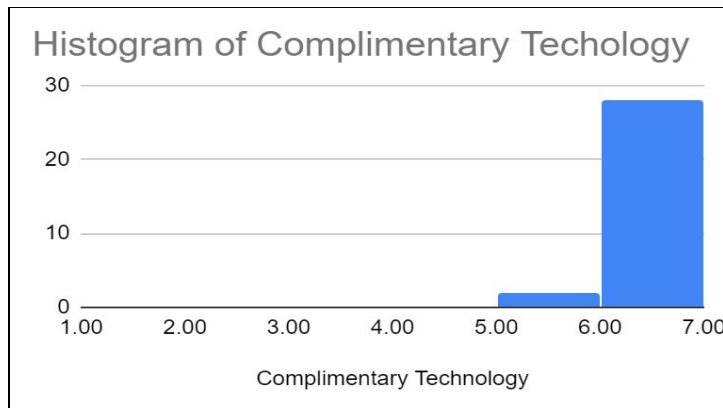
Figure 3 shows histogram of complimentary technology

Figure 3 indicates the quality of technology used to access Moodle. Out of the 30 respondents, 28 rated the complimentary technology between 6 and 7 which shows that the technology used to access Moodle is effective. 2 participants rated the technology between 5 and 6 which is still effective since.

Histogram of Computer Self Efficacy.
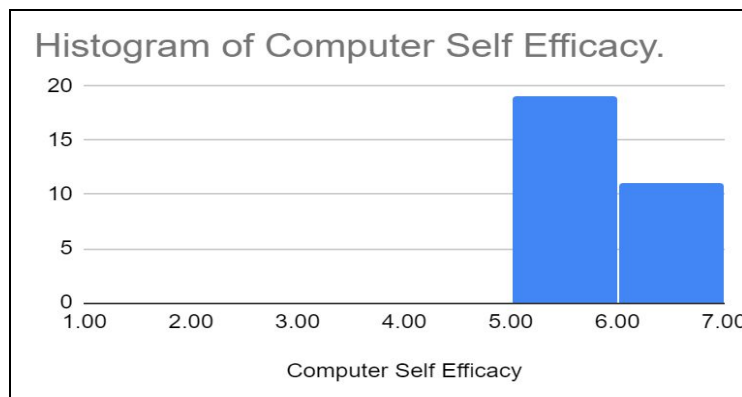
Figure 4 shows histogram of computer self-efficacy

Figure 4 indicates the respondents self-efficacy when using Moodle. This refers to the respondents ability to use Moodle with or without the aid of someone. 19 participants rated it between 5 and 6 which indicates that most are able to use Moodle without the help of others. Also, 11 rated it higher which is between 6 and 7 which shows that all of the respondents have problems in using Moodle by themselves. None of the respondents rated it below 5 which would have indicated that they required help from someone to use Moodle.
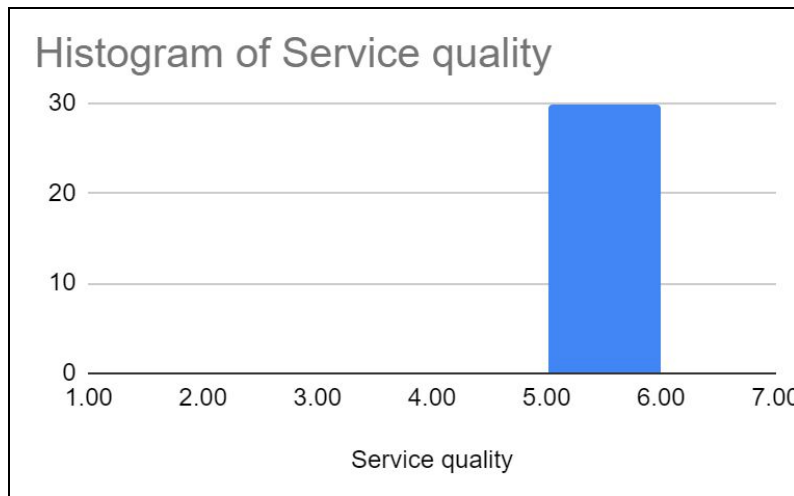
Figure 5 shows histogram of service quality

Figure 5 shows the service quality provided by the institution's IT department. Service quality refers to the assistance that students receive from the IT department when they face difficulties with Moodle. As can be seen, all respondents rated service quality between 5 and 6 which indicates that the assistance received by the students from the It department is very efficient. There is no variance between the responses since none rated it below 5.
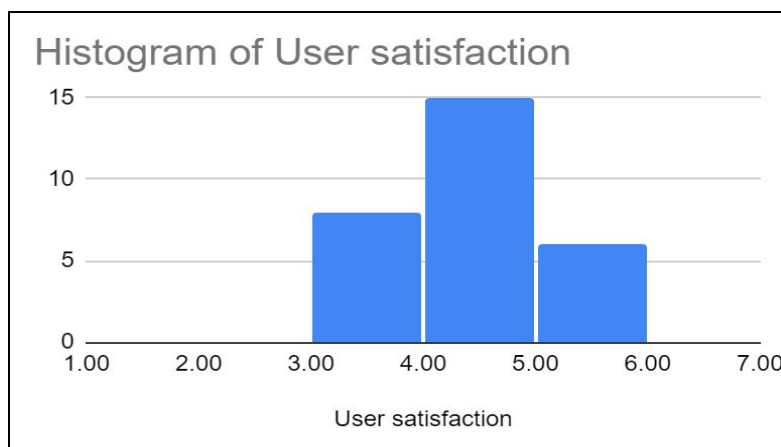
Figure 6 shows histogram of user satisfaction

Figure 6 indicates the satisfaction of students from using moodle. The graph indicates that out of 30 respondents, 15 rated is between 4 and 5 which would be considered fair. Only 6 rated it between 5 and 6 which indicates that they are satisfied with moodle. On the other hand, 8 participants rated it between 3 and 4 which indicates that they are not so satisfied with moodle. The overall responses indicate that moodle is not adequately meeting the users expectations
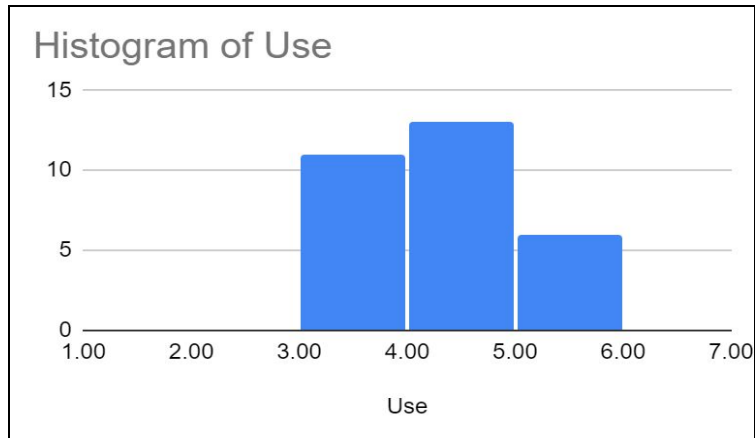
Figure 7 shows histogram of the use of Moodle

Figure 7 shows the use of Moodle by the respondents with regards to frequency, dependence and ability to complete tasks. The data shows that out of the 30 participants 13 rated their use between 4 and 5 shows a moderate use. Only 6 students rated it between 5and 6 which indicates that they do use Moodle. 11 respondents rated their use between 3 and 4 which shows that they do not frequently use Moodle.
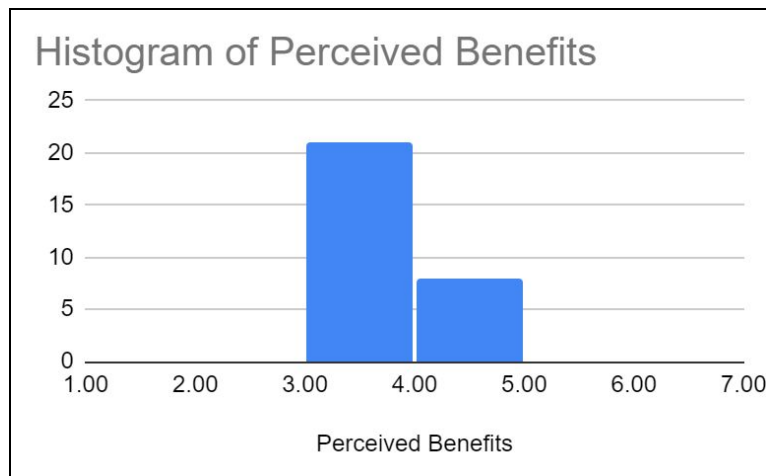
Figure8 shows histogram of perceived benefits

Figure 8 shows the students responses as to the perceived benefits received by using Moodle. The perceived benefits are with regards to their academic performance, saving costs and achieving goals. 22 respondents rated their perceived benefits between 3 and 4 which indicates that the respondents do not feel that Moodle does not benefit them. Only 8 students rated it between 4 and 5 which would be considered moderated. Overall Moodle does not seem to provide benefits to its students.

Discussion

The University of Belize offers Moodle to all of its students. The data collected was analyzed to provide results with regards to the students use of Moodle, perceived benefits, user satisfaction, complementary technology used, information quality, system quality, user satisfaction and self-efficacy.
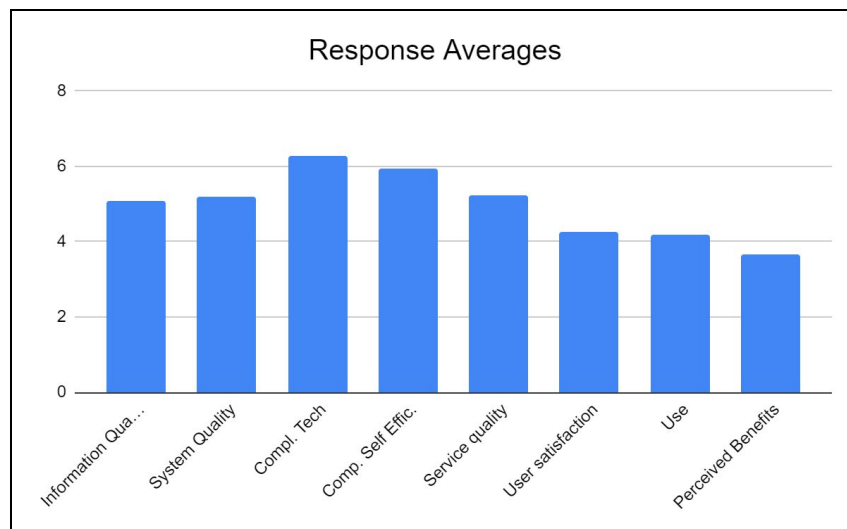
Figure 9 shows the average responses for each category

Computer self-efficacy is the second highest construct with an average of 5.9. This indicates that the majority of students do not have problems using Moodle. They did not require assistance from someone else to be able to use the management information system. Therefore, Moodle is easy to use by students. Also, service quality had an average of 5.91. Students indicated that the assistance rendered to them by the institution with regards to issues that they might face with Moodle is adequate. Furthermore, complimentary technology used by students to access Moodle was the highest with an average of 6.2. This means that the software, hardware and internet used by most students is highly effective in accessing mood.

Although Moodle is easy to use by most students and the technology used to access Moodle is effective, the information quality is not as high as it should be. Information quality should be the highest construct since Moodle is aimed at providing relevant information to all students since all have access to it. Nevertheless, information quality was the 5th highest with an average of 5.1. This reveals that Moodle does not provide relevant information to its users. Moodle should provide students with the course

content such as powerpoints, word documents or pdfs as well as grades or lecturers should be posting announcements about the course. All of these features are available in Moodle however not all lecturers are not using it. Students who have access to this content are those taking online classes. As a result the management information system is not being used effectively.

The perceived net benefits of using Moodle was the lowest construct with an average of 3.6. This reveals that the students do not feel that Moodle provides much benefit when it comes to their academic performance and saving costs. The second lowest construct is use of Moodle with an average of 4.9. This result indicates that the majority of students do not use Moodle with much frequency nor depend much on Moodle to complete tasks. We can infer that since students do not feel that mood provides them with much benefits then they don't use it with frequency or depend on it. Both the perceived benefits and use of Moodle would be classified as being very low.

The user satisfaction construct had an average of 4.2 which is the 3rd lowest. User satisfaction should be one of the highest, those using the system should feel satisfied with what it offers and how it works, in order to be effective. Those using it do not perceive the utility of Moodle as being high nor has it met the users' expectations.

Conclusion

One of the main functions of Management Information Systems is to develop, maintain and provide accurate and timely information that will enhance an organization's ability to meet its objectives. Similarly, e-learning information systems are used in educational institutions to enhance the learning process, by improving teaching and learning methodology, and contributing to the acquisition and application of new skills. Notwithstanding the benefits incorporated with e-learning systems such as promoting learner control, determining whether or not the implementation of e-learning platforms influences learning and teaching continues to be important. This is because some universities don't fully understand how to use the software or find it challenging to adapt to its online/digital aspect. Having said that, this research confirms that students at the University of Belize do not have problems with regards to the usage of Moodle. Correspondingly, the computer self-efficacy, service quality and complimentary technology constructs which all complement one another, were similarly positive (above success average). However, other constructs such as user satisfaction, perceived net benefits and more importantly, information quality had low averages, thus indicating that Moodle is not entirely applicable. The results illustrate that many implications must be done in order to encourage the use of Moodle in the University of Belize. Overall, this study provided a framework for understanding e-learning information system success, usage, its information quality, and perceived net benefits, all of which provides a foundation for future research.

Limitation and Future Work

There were several limitations that influenced the results of this research. The sample size was small-scaled to 30 students attending the University of Belize. Additionally, the research was only from respondents in UB's central campus. Hence, results lack consistency or a fixed pattern because other students were not given the opportunity to participate in the questionnaire. Another limitation is that each researcher had to meet the time constraints placed on assessments from other enrolled courses. As a result, the members had difficulty focusing solely on this paper. Future work can utilize more time than the given four months in a semester to collect data from more students and from different campuses.

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Appendix A

This research is required for the CMPS3012 MIS course at University of Belize University. This questionnaire asks for information about yourself and how often you use the Learning Management System Moodle. The data gathered will be analyzed to determine the success of Moodle at our University.

Please answer each question based on your use of Moodle. Your individual responses to the questionnaire will be strictly confidential and used solely for this research.

Instructions

This is a survey, not a test; there are no right or wrong answers. Please tick the boxes to mark your answers.

1. Background Information	Answers:
Please indicate your gender:	Male ☐ Female ☐
Please indicate your age:	<17 ☐ 17-18 ☐ 19-20 ☐ 21-22 ☐ >22 ☐
Please indicate what faculty you are in at University of Belize:	FMSS ☐ FEA ☐ FST ☐ FHS ☐
Please indicate what year you are currently in University of Belize:	1st Year ☐ 2nd Year ☐ 3rd Year ☐ 4th Year☐

Indicate your agreement with each statement by rating it from (1) strongly disagree to (7) strongly agree.

2. Information Quality	Disagree -------------------------------Agree
IQ1: The Moodle system provides information that is exactly what you need	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ2: The Moodle system provides information you need at the right time	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ3: The Moodle system provides information that is relevant to your class	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ4: The Moodle system provides sufficient information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ5: The Moodle system provides information that is easy to understand	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
IQ6: The Moodle system provides up-to-date information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
3. System Quality	Disagree -------------------------------Agree
SQ1: The Moodle system is easy to use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ2: The Moodle system is user-friendly	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ3: The Moodle system provides high-speed information access	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SQ4: The Moodle system provides interactive features between users and the system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
4. Complementary Technology Quality	Disagree -------------------------------Agree

CTQ1: The software on the device (desktop, laptop, mobile device) you normally use to access Moodle is adequate	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ2: The device hardware (desktop, laptop, mobile device) you normally use to access Moodle is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ3: The speed of the Internet connection used to access Moodle is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CTQ4: The reliability of the Internet connection used to access Moodle is adequate.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
5. Computer Self-Efficacy Measure	**Disagree --------------------------------Agree**

I COULD COMPLETE THE COURSE/S USING THE MOODLE SYSTEM...

CSE-1 .... if there was no one around to tell me what to do as I go.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-2 .... if I had never used an information system like it before.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-3 .... if I had only the Moodle system manuals for reference	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-4 .... if I had seen someone else using the Moodle system before trying it myself.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-5 .... if I could call someone for help if I got stuck.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-6 .... if someone else had helped me get started.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-7 .... if l had a lot of time to complete the course/s for which the Moodle system was provided.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-8 .... if I had just the built-in help facility for assistance.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-9 .... if someone showed me how to use it first.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
CSE-IO.... if I had used similar information systems before this one to complete a course/s.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
6. Service Quality	**Disagree --------------------------------Agree**
SV1: The support staff keep the Moodle system software up to date	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV2: When users have a problem the Moodle system support staff show a sincere interest in solving it	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
SV3: The Moodle system support staff respond promptly when users have a problem	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

SV4: The Moodle system support staff tell users exactly when services will be performed	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

7. User Satisfaction	**Disagree --------------------------------Agree**
US1: Most of the users bring a positive attitude towards the Moodle system function.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US2: You think that the perceived utility about the Moodle system is high.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US3: The Moodle system has met your expectations.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
US4: You are satisfied with the Moodle system.	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

8. Use	**Never ----------------------------------Often**
U1: Your frequency of use of the Moodle system is high	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U2: You depend upon the Moodle system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U3: You were able to complete a task using Moodle even when there was no one around to tell you what to do	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
U4: You have the knowledge necessary to use the Moodle system	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

9. Perceived Net Benefits	**Never ----------------------------------Often**
NB1: The Moodle system helps you improve your academic performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB2: The Moodle system helps students save costs	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB3: The Moodle system helps you achieve your academic goals	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB4: Using the Moodle system improves assessment and teaching	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB5: Using the Moodle system at school increases your academic productivity	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
NB6: Overall, using Moodle enhances student performance	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

Please return this survey to the person who gave you the form.

Thank you for your participation.