# Measuring the Success of Moodle at the University of Belize, Belize City Campus

# Delmi Carrillo

Faculty of Management and Social Sciences University of Belize delmiec21@gmail.com

# **Edwin Aguilar**

Faculty of Management and Social Sciences University of Belize winaguilar17@gmail.com

# Melissa Vanzie-Grant

Faculty of Management and Social Sciences University of Belize 200115936@ubstudents.edu.bz

# **Roberto Hoare**

Faculty of Management and Social Sciences University of Belize 2014110834@ubstudents.edu.bz

### Abstract

Evaluating the success of information systems has become an essential part for many organizations not only in Belize but around the globe. A research has been conducted on the information success of Moodle at the University of Belize. Data was collected from 120 students from the University of Belize, Belize City campus by means of questionnaires. This study provides an empirical test of an adaptation of DeLone and McLean; success model in the context of Moodle Information System. The model consists of six constructs which are information quality, system quality, service quality, user satisfaction, use, and perceived benefits. The two other constructs added were the complimentary technology quality and self-efficacy measure. The Moodle information system being used by the University of Belize allows lecturers and students to upload documents, conduct online classes, and track student progress in their individual courses. The aim of this research is to determine the net benefit Moodle provides and the learning management system that is utilized at the University of Belize which resulted to be moderately successful. The conclusion of this paper addresses the success of the majority of the responses which shows that more students find Moodle to be helpful and beneficial.

**Keywords:** Information System, Success Model, Moodle, Learning Management System, Perceived Net Benefits

# Introduction

Moodle was developed in 2002 by Martin Dougiamas to help educators create online courses with a focus on interaction and collaborative construction of content. Since then, the main development of Moodle is led by Martin and the core team at Moodle Headquarters, as well as hundreds of other developers around the world who have helped fuel the growth of Moodle through contributing and testing code, and being active participants in community forums.

Moodle is a free open-source Learning Management System (LMS) or e-Learning platform that serves educators and learners not only at the University of Belize but across the globe. It is the most widely used LMS in the world and currently has over 68 million users worldwide (and growing!) including the students and lecturers at the University of Belize. Moodle does not replace attendance at classes, but helps enhance students learning by providing them with additional resources once enrolled into a course or unit. Students can log into Moodle by using their ID number and a password where access is granted to their timetable, announcements from tutors, to search supporting course activities and documents as well as recommended readings on enrolled courses.

The purpose of this study is to determine the success of Moodle at the University of Belize as well as ways in which the system can be improved to increase the perceived net benefits to the students attending University of Belize. Over the years the University has been implementing the use of the LMS Moodle, it is essential to determine its value and importance and whether or not the system is successful for the University of Belize. This research can be useful to the management of the University since it will provide actual data on student perspective of Moodle and provide awareness on the execution of the system by lecturers and support staff. The Management Team would be provided information that can allow them to improve the University's business functions and their strategic business objectives.

We intended to analyze how efficient and successful this system is and ways on how to improve it at the University. A basic research method was used with the development of questionnaires to gather information from the students attending the University of Belize, Belize City campus. The analysis of the data collected will be represented via tables, chart and other formats to display our findings.

# **Literature Review**

#### **Brief History**

Over the past years technology has evolved and has changed the landscape of education. For many years, students attended in class sessions and participated in class through the traditional system of teaching where teachers provided face-to-face lectures, in class activities with aid from internet materials, written tests and more (Mtebe, 2015). Even though this system is still applicable today, it has been modernized with the help of technology, specifically Learning Management Systems (LMS). Learning Management System (LMS) is defined as a software application that automates the administration, tracking and reporting of training events (Ellis, 2009). In contrast, others believe that the definition of LMS is the relationship between education and the utilization of the system to enhance teaching and learning for students. LMS has shown success in many developing countries with the improvement in student performance and reduction in student dropouts. These systems have improved student satisfaction across developing countries; however, with the diverse challenges encountered by Universities, benefits may differ across these countries (Mtebe, 2015).

#### The Success of Moodle

This research shall analyze prior research on the success of the LMS, Moodle a well-known platform. Moodle (Modular Object-Oriented Dynamic Learning Environment) is an online learning platform renowned for its ease of use, intuitive side, active community that supports it and the large number of features offered (Jebari, Boussedra & Ettouhami, 2017). Moodle is a fast growing LMS; management from all levels of education is trying to implement its system. Moodle provides educational or communicative functions to create an online learning environment: it is an application for creating the interactive courses, through the network of interactions between educators, learners and learning resources (Jebari, Boussedra & Ettouhami, 2017).

Ever since the introduction of Information Systems decades ago, organizations find the need to determine whether the systems that they have invested in are successful or not (Delone, Mc Lean & Petter, 2012). Organizations need to ensure that their heavy investments in Information Systems are meeting organizational goals (Delone, McLean & Petter, 2012). One research sought to identify whether the technical and expertise of support staff in the implementation of the information system, Moodle, led to its success (Lawler, 2011). Since Moodle is an open source learning platform, it is free of cost providing benefits to the University that uses it. Due to the nature of the available system Universities require expert staff that would be able to install and maintain the software, including future upgrades (Lawler, 2011). Lawler's study revealed that not including the educated wisdom on effective management inclusive of planning, organizing, leading and controlling from top management down, led to the success of Moodle at the University of Ballarat. The success was as a result of having valuable and credible support staff for the Learning Management System as oppose to applying traditional project management.

Key factors that contributed to the implementation of Moodle at the University of Ballarat were:

- Effective training on usage
- Support staff focused on end users being satisfied
- Staff users along with students from their courses used the system voluntarily
- Effective human interaction from support staff

In another research, K. Jebari, et al, explained that teachers must not underestimate the limitation of competency level in students when using Moodle. Simply put, the research identified the best learning process for Moodle to become a success is to separate students by learner profile (Jebari et al, 2017). In order to test Moodle's success, researchers applied a study of three types of learning patterns and compared results against the student learner profiles. This research revealed that having an e-learning style with group monitoring is the most effective method of using Moodle. It is perceived that students are willing to put extra effort due to lecturers making themselves available at any time through the use of the LMS. Jebari et al, concludes by informing readers of the options teachers have on Moodle. It is explained how the use of chats and video conference in real time allows for effective interaction between teacher and student.

In comparing Lawler and Jebari et al researches we learn that both successes occurred with support staff providing a key role. While Lawler focused on the technical support, Jebari et al focused on the teacher support. These reviews provide insightful information on the importance of customer intimacy in strategic planning.

### Methodology

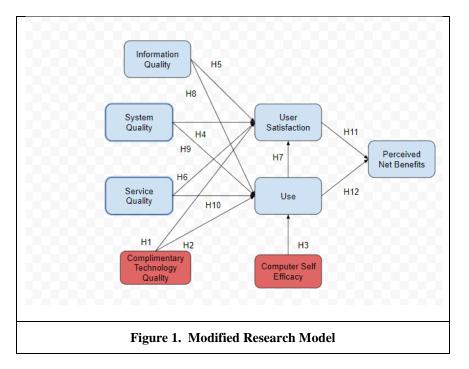
The global learning platform, Moodle, is utilized at the University of Belize and is providing lecturers the opportunity to provide course materials, communicate, collaborate, and conduct assessments and much more with students across all campuses. The learning platform, Moodle allows for a personalized environment or class setting.

In 2011, Lawler conducted a research on the implementation of Moodle at his University using a qualitative methodology. His method included several types of interviews and informal group discussions that were conducted during 2009-2010 with staff and students of the University. His study included a trial period for the use of Moodle using 21 staff and 155 students and completed with a survey to identify the use of the information system. His results led to the success of implementing Moodle at his University and training provided to staff and students. Final results proved that Moodle is a successful learning platform.

In this research, we decided to conduct a basic research due to time constraints using a quantitative survey to gather data from a pool of 120 students at the University of Belize. The aim was to determine the success of the school's existing learning management system, Moodle. The survey was constructed using the six distinct constructs from the Information System Success Model (Delone and McLean, 2003) which has been widely used in research of this nature. These interrelated constructs include, Information Quality, System Quality, Service Quality, User Satisfaction, Use and Perceived Net Benefits. The survey also included two additional constructs, Contemporary Technology Quality and Computer Self-Efficacy, both contributing to the research analysis on information system success in developing countries.

The D&M IS Success Model incorporated with the two additional constructs allows us to capture data on their inter-relationship. As stated by Delone and McLean, quality has three dimensions that are related to use and user satisfaction. In this study we included Complimentary Technology Quality along with the three dimensions of quality from the Delone and McLean model to identify their relationships. We also applied the Computer Self Efficacy construct which has a direct relationship with Use and further related to User Satisfaction. Finally, based on the results of Use and User Satisfaction, we expected some influence on Perceived Net Benefit as stated by Delone and McLean.

The modified research model identified in figure 1 displays the basic research relationship between each constructs. In an effort to aid future researchers wishing to conduct applied research, the use of the listed hypothesis can be utilized.



#### **Proposed Hypothesis**

- 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.

#### **Construct Measurement**

In this research a quantitative approach was adopted in an effort to ensure validity of the analysis. The use of the 7 - point Likert Scale was applied with the intent of capturing agreement or disagreements on the

various constructs in the model and to incorporate a neutral mid-point. This scale allows for ease in analyzing the data collected. A sample of the survey can be found at Appendix A.

#### Sample and Data Collection

The data from this survey was collected from a sample of 120 students of the University of Belize resulting in a response rate of 100%. The characteristics of the respondents are shown in table 1.

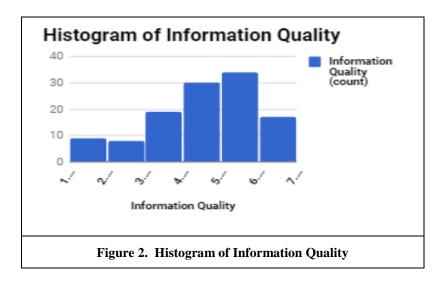
Table 1. Characteristics of Student Respondents		
Characteristics	Quantity	Percentage
Gender		
Male	36	30%
Female	84	70%
Age		
Less than 18	22	18.3%
From 19 to 25	59	49.2%
26 to 35	33	27.5%
36 and over	6	5%
Faculty		
Education & Arts	7	5.8%
Science & Technology	6	5%
Nursing, Allied Health & Social Work	6	5%
Management & Social Sciences	101	84.2%
Education		
Associates	57	47.5%
Bachelors	63	52.5%
Masters	0	0
Employment		
Fully Employed	64	53.3%
Part Time Employed	21	17.5%

Not Employed	35	29.2%
No. of Courses utilizing Moodle		
1	54	45%
2	13	10.8%
3	20	16.7%
4	11	9.2%
5	7	5.8%
6	15	12.5%

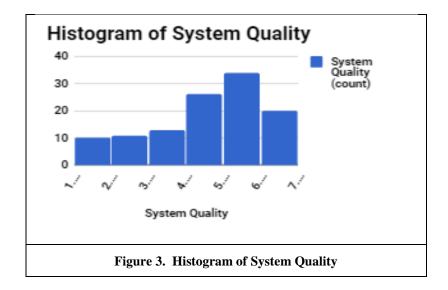
 Table 1. Characteristics of Student Respondents

### **Data Analysis**

Basic research was done to measure the success of Moodle amongst the students of The University of Belize, Belize City campus. Hypothesis testing was not done in this study; nevertheless the research that was conducted was to determine the success of different constructs in the information system of Moodle. Histograms and charts were made to display the average responses for each individual construct and an overall bar chart for the average of all constructs. Below are the figures:



The frequency distributions in the above histogram depict the averages of the information Quality. Most of the results are between a rate of 5 and 6 which is good. The greater majority of results are above the average frequency distribution which means that most students are satisfied with the quality of information on Moodle. A very few amount of students are not satisfied with the information quality on Moodle.



The histogram in figure 3 depicts the averages of the system quality. Based on the histogram, Most of the results are between the rates of 5 and 6 which are good. The majority, results to above the average frequency distribution, ranging from 4 to 7. This means that most students are satisfied with the quality of information on Moodle. A small portion of the students are not satisfied with the system quality of Moodle.

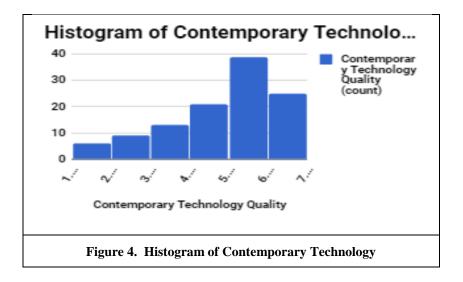
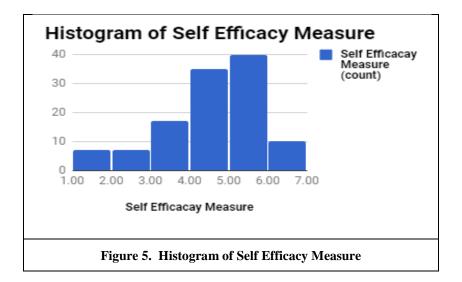
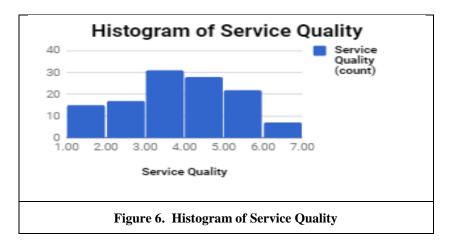


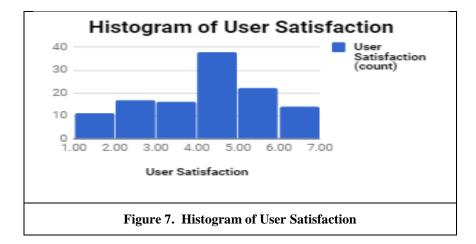
Figure 4 shows the averages of the contemporary technology. Based on the histogram, Most of the results are between 5 and 6 which are good. The greater majority of results are above the average frequency distribution, ranging from 4 to 7; which mean that most students are satisfied with the quality of information on Moodle. Few students are not satisfied with the contemporary technology.



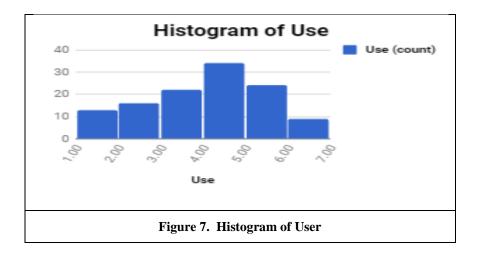
The frequency distributions in the histogram for figure 5 depict the averages of the self-efficacy measure. Based on the histogram, most of the results are between 4 and 6 with response ranging from 5 to 6 being the highest. This signifies that most students are satisfied with the self-efficacy measure. Few students are not satisfied with the self-efficacy, these results range between 1 and 3.



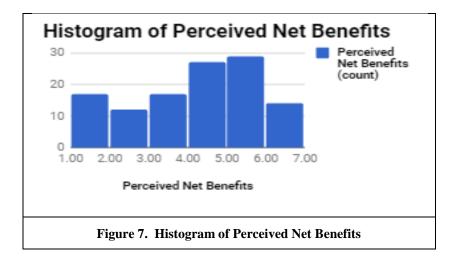
The frequency distributions in the histogram depict the average responses of the service quality. Based on the histogram, Most of the results are between 3 and 4 which are neutral. The frequency distribution is at its highest on the average. There is room for improvement on the service quality indicating that the IT technicians are not working to par or there is a barrier between the students and IT department.



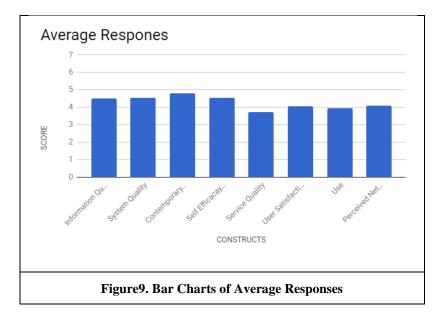
The users' satisfaction is shown in the above histogram. Based on the histogram, Most of the results are between 4 and 5 which signify that users are satisfied. A small amount of students are not satisfied with using Moodle.



The frequency distributions in the histogram depict the averages of use. Based on the histogram, Most of the results are between 4 and 5 which are good. However it shows that there isn't much usage of Moodle. This could possibly mean that few classes require the usage of Moodle.



Histogram figure 9 depicts the averages of the perceived Net Benefits. Based on the histogram, Most of the results are between 5 and 6 which is good. This result signifies the overall satisfaction students have toward Moodle. Also a small portion of the students are not satisfied with Moodle.



The Bar chart represents the Average Response on all 8 constructs by students. All Constructs showed a good score with a rate of 4 and above. The only exception was the construct of Service Quality that was below 4. This means that students are satisfied with Moodle. However they are not satisfied with the Service Quality which could mean there is a communication barrier with the IT department at school or the IT department is not constantly maintaining Moodle.

### Discussion

To measure the success of Moodle (Modular Object-Oriented Dynamic Learning Environment) at the University of Belize, Belize City campus the basic research method was conducted. The study was based on the Delone and McLean Information System Success Model which is a widely used framework to judge and

operationalize the success of Information Systems (Delone & McLean, 2003). The model is made up with a frame of six constructs and more were added to see if it has any impact on a developing country such as Belize. In total the frame of constructs used to measure the success of the Information system was now a total of eight constructs. The 6 constructs that make up the original model consist of the information quality, system quality, service quality, user satisfaction, use, and perceived benefits. The two other constructs added were the complimentary technology quality and self-efficacy measure. These two constructs were added to give a more detailed study in the success of Moodle because the research was done in a developing country.

Based on the research many constructs end with many variances. The cause for variances was due to the different opinions of the students. This could also be due to the fact that Moodle is not being utilized by all students as they may not need to access any information or work from the system. The sample size of 120 students showed different perspectives and views on the system of Moodle. Due to this factor the distribution frequencies in each of the constructs was different. The less varied construct was the complimentary technology which was one of the new constructs added to the frame. This shows that the new construct had little impact on the previous model and indicates that students are moderately satisfied with level of technology in the country. The other constructs showed minimum variance in the frequency distributions. The most varied constructs was the service quality. The results showed low level of satisfaction with maximum grade for being from ranges of 3-4 and in the total average it was 3 which were below the neutral mark for good. This could be due to the IT department not working to make the system more effective and efficient for students or could be due to a barrier of communication between students and the IT department to fix any issues.

The most important construct to measure the success of Moodle is the perceived net benefits. The perceived net benefits gives a view of the level of satisfaction users have using Moodle. Hence it shows if the system is successful for the University. The frequency distribution for this construct is rated at the range of 4- 6 on its individual average and on the overall average of responses its rate is 4. The rate of 4 implies students are moderately satisfied with the system. The results are greater than the neutral point of 4, which means that more students find Moodle to be helpful and beneficial.

Based on the average response construct, the highest frequency distribution was the complimentary technology. The rate of the complimentary technology was a 4.75. It is not too high but above the neutral point that is 3. This shows that most students at the Belize City campus have the adequate device hardware, the adequate survey, the adequate device, and good internet to access Moodle. The lowest frequency distribution is the service quality. The rate for the service quality is a 3.5 meaning that it is a little above the neutral point. Results revealed Moodle generally being a success but also identified that improvement can be made in the area of service quality based on figure 5. The specific category does affect the information system itself but rather the level of support to help students at the Belize City campus.

In conclusion the Moodle support staff need make a major improvement in the quality of service they offer to students. This means that Moodle support staff has to keep information on Moodle updated, show a sincere interest to solve student problems on Moodle, respond promptly when users have a problem, and also to tell users exactly when services will be performed. We suggest that the Moodle support staff be trained more in order to improve the service quality. Despite the negative factor of service quality, all frequency distributions on the average response construct are about the neutral point three. This leaves us to conclude that the modular objective-oriented dynamic learning environment is moderately successful.

#### Conclusion

This basic research provided a structure for understanding Moodle success and explored the impact of both Moodle qualities on User Satisfaction, Moodle's Use and Perceived Net Benefits. The information provides a foundation for future research. The model that assisted with this basic research is the Delone and McLean Information System Success Model which is a popular framework used to measure the success of information systems. The framework consists of six constructs that evaluate the success of the information systems. These are Information Quality, System Quality, Service Quality, User Satisfaction, Use and Perceived Net Benefits (Delone & McLean, 2003). However, since the University is in a developing country we decided to add two more constructs which are Complementary Technology Quality and Self-Efficacy Measure. To rightfully judge the success of the information system in this country the two new constructs added would be necessary and essential variables.

Our research showed positive results indicating moderate satisfaction towards Moodle from the students of the University of Belize, Belize City Campus. The overall rates provided by the students on all constructs were close to four (4) which indicates neutral, good or above. The only exception was the construct of Service Quality, which received a rate of three (3), below the neutral rate. These results could be due to a lack of maintenance on the IT department of the University or a barrier in the communication between the students and the IT department. Nevertheless the Perceived Net Benefits which was an important construct due to its impact on the success of the information system showed results being neutral, which in this case indicates positive, moderate satisfaction. Despite the low turnout on the construct of Service Quality, results show Moodle has a positive impact on the students at the University of Belize.

### Limitation

The research turned out to be successful as it served its purpose to measure the success of the information system Moodle. However there were limitations faced along the way. Time and resources played a role on the research. Both researchers and students from the University of Belize we were faced with limited time as we only had 4 months to complete this research. This type of research can be vigorous and very time consuming. Another limitation was the fact that the sample size, 120 students, gathered may not represent the entire population (Approximately 4,000 students) in the University of Belize. Therefore, the conclusion may be misleading and not represent the true opinion of all students.

The final limitation was not using the program of SPSS. This program is designed to help and be effective with quantitative research. Due to little time, the group was unable to use the program as it requires time to master and work with it. Regardless of the limitations mentioned, the study provides beneficial information in regards to the success of Moodle at the University of Belize.

### Recommendation

The University of Belize should consider implementing methods that allow teachers to use Moodle more frequently to get their students more involved with the information system. This would allow students to be more active and become more familiar with the program. After all, the purpose of Moodle is to enhance the knowledge and assist students in their academics. Another recommendation would be to strengthen the communication between students and the Information Technology Department. In order for Moodle to be more successful the University of Belize must make improvements in the Service Quality to maintain User Satisfaction. This can be done by posting frequent updates on Moodle and educating students on utilizing the information system to its full capacity. Finally, future research is recommended by testing the hypothesis and increasing the sample size to have more accurate representation on the success of Moodle.

#### References

- Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: a ten year update. Journal of management information systems, 19(4), 9-30.
- Ellis, R. (2009). A field guide to learning management systems. USA: American Society of Training and Development (ASTD).
- Jebari, K., Boussedra, F., & Ettouhami, A. (2017). Teaching "Information Systems Management" with Moodle. 4-17. Retrieved from <u>http://www.i-jet.org</u>
- Petter, S., DeLone, W., & McLean, E. R. (2012). The past, present, and future of" IS Success". Journal of the Association for Information Systems, 13(5), 341.
- Johns, R. (2010, March). *Survey Question Bank: Methods Fact Sheet 1 (March 2010)*. Retrieved April 19, 2018, from <u>https://www.ukdataservice.ac.uk/media/262829/discover\_likertfactsheet.pdf</u>
- Mtebe, J. S. (2015). Learning management system success: Increasing learning management system usage in higher education in sub-Saharan Africa. *International Journal of Education and Development using Information and Communication Technology*, *11*(2), 51-64. Retrieved from <u>https://drive.google.com/drive/folders/18UgbQ5DCcL6d2vjQvmrkt6F\_Ciopc25Y</u>

Appendix A

Appendix A

#### Questionnaire – "Measuring the Success of Moodle: A study at the University of Belize"

Your University has invested in Moodle, E-learning software, for the benefit of you and your lecturers. We would like to measure the success of Moodle at the University of Belize. The data gathered from this survey will be used to complete a final research paper for the Management Information System, CMPS 3012 course at the University of Belize.

Please answer the questions in relation to the success of Moodle. Your individual responses to the survey will be strictly confidential.

#### **Instructions**

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

Background Information	Answers
Please select your age group:	Less than 18 🗌 19 to 25 🗍 26-35 🗍 36 and over 🗍
Please indicate your gender:	Male 🔲 Female 🗌
Please indicate faculty of study:	Education & Arts      Science & Technology     Nursing, Allied Health and Social Work     Management and Social Sciences
Please indicate your level of study:	Associates Bachelors Masters
Please indicate your employment status:	Fully Employed  Part Time Employment Not Employed
How many of your current courses utilize Moodle?	1 2 3 4 5 6

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

1. Moodle Information Quality	DisagreeAgree
Does Moodle provide the exact information you need?	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
Is the information on Moodle available at all times?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Does Moodle provide information that is useful to your academic studies?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Is the information on Moodle adequate?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Are the information represented on Moodle easy to understand?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Is the information on Moodle up-to-date?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
2. Moodle System Quality	DisagreeAgree
Is Moodle easy to use?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Is Moodle user-friendly?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Does Moodle provide you with high-speed information access?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Are the features in Moodle interactive?	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
3. Moodle Complementary Technology Quality	DisagreeAgree
The device hardware (desktop computer, laptop, mobile device) used to access your Moodle account is adequate.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌

The software on the device (desktop computer, laptop, mobile device) used to access your Moodle account is adequate.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
The device (desktop computer, laptop, mobile device) used to access Moodle is adequate.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
The reliability of the Internet connection used to access Moodle is adequate.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
4. Moodle Computer Self-Efficacy Measure	DisagreeAgree
I COULD COMPLETE MY ASSIGNMENTS USING MOODLE	
if there was no one around to tell me what to do as I go.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I had never used an information system like it before.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if had Moodle manuals for reference.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I had seen someone else using Moodle before trying it myself.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I could call someone for help if I got stuck.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if someone else had helped me get started.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I had a lot of time to complete the assignment/test for which Moodle was provided.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I had just the built-in help facility for assistance.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if someone showed me how to do it first.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
if I had used similar information systems before this one to do the same job.	1 2 3 4 5 6 7

5. Moodle Service Quality	DisagreeAgree
The support staffs keep Moodle up to date.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
When students have a problem, Moodle support staff shows a sincere interest in solving it.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Moodle support staff responds promptly when users have a problem.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Moodle support staff tell users exactly when services will be performed.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌

6. Moodle User Satisfaction	DisagreeAgree
Most students bring a positive attitude or evaluation towards Moodle	
function.	
You think that the perceived usefulness about Moodle is high.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
Moodle has met your expectations.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
You are satisfied with Moodle.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
7. Moodle Use	DisagreeAgree
The frequency of use with the Moodle is high.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
You depend on Moodle.	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _

Second Annual Research for National Development Conference, University of Belize 2018 15

I was able to complete a task on Moodle even if there was no one around	1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _
to tell me what to do as I go.	
I have the knowledge necessary to use Moodle.	1 🗌 2 🗌 3 🗌 4 🗌 5 🗌 6 🗌 7 🗌
8. Moodle Perceived net benefits	DisagreeAgree
Moodle helps you improve your educational performance.	
Moodle helps you save school related cost.	
Moodle helps you achieve your academic goals.	
Using Moodle at University of Belize increases your academic productivity.	
Overall, using the Moodle enhances your academic performance	

Please return this survey to the person who gave you the form. Thank you for your participation.