

Audit Analysis of Students' Skills and Attitudes towards E-Learning at the Cagayan State University - Carig Campus: Basis for Innovating Teaching and Learning

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Abstract: *This study examines the attitudes and skills of students towards e-learning which shall be the basis for innovating teaching and learning. Using the survey method, a total of 40 students responded to the survey instrument which was the questionnaire. Results of the study showed that students' attitudes towards e-learning are positive with a weighted mean of 4.10 which means that they can actually adapt to a learning environment where lessons and topics are delivered online and where they can acquire skills and knowledge online. Likewise, they have excellent technology skills which are very important in e-learning. Therefore, with the infiltration of technology in the educational sector, there is no doubt that e-learning can be implemented at the Cagayan State University, thus, making the tools and technologies more relevant and appropriate for a student-centered learning approach. Based on the findings of the study, it is therefore recommended that the institution shall innovate tools, models and strategies for a student-centered learning through the use of e-learning solutions since it can help both the teachers and the students in their quest for quality education. In addition, students' skills and attitudes towards e-learning are factors that can pave the way in the development and implementation of e-learning.*

Keywords: E-learning, audit analysis, technology-based learning, innovation, 21st century education

1. Introduction

Technological development and the internet have changed people's lives on different aspects including teaching and learning. The web has become one of the tools of learning that paved the way for people around the world to access education. According to Koller (2001), technology-based learning has provided traditional students with opportunities to access the best programs offered by a variety of educational institutions and offer working adults greater access to education and professional development regardless of distance. In fact, the use of technology-based learning in post-secondary institutions is continuously growing. Its application ranges from offering select courses online as part of traditional on-campus programs to offering entire certificate, undergraduate, and graduate programs solely online as well as blended learning options.

Moreover, organizations today continue to depend on inefficient manual systems and processes to manage their documents, data and their way of knowledge transfer. But with the presence of technology, these organizations started to change their method of managing the documents and data and the method of knowledge transfer, thus resulting to a more effective and efficient way of processing data and documents and eventually could lead to quality and excellent services. Similarly, knowledge acquisition can become easier and faster for students and learners with the use of the internet and e-learning technology.

Online learning which is now part of many websites - is one of the fastest growing trends in the education sector. Instructors in higher education are under pressure to provide more effective and efficient learning environments, new

teaching paradigms and educational opportunities and experiences to their students. In colleges and universities, teaching serves as an important instrument for achieving institutional goals of enhancing students' knowledge and skills and exposing them the real scenarios in the learning community to prepare them become global citizens. Therefore, educators always are looking for ways to make their educational initiatives more effective (Hsu, 1999). The learning experience in higher education has shifted paradigms from an instructor-focused approach to learner-centered pedagogical methods (Hsu & Wolfe, 2003).

The rapid developments in education is basically the result of a whirlwind change in the modalities of teaching. Globalization, ASEAN integration and the 21st century education are among the factors in which higher education institutions are really prompted to shift from the traditional approach of learning to a more technology and student learning approach that could meet the demands in the sudden change of education. Therefore, teachers and other stakeholders should level up their styles and approaches in order to equip the learners with up-to-date concepts and theories which they can apply in their jobs.

Over the past decades there has been an enormous change in learning and educational computer applications and the use of computers in education. With the advent of technology, educators must have to find meaningful ways to integrate these technologies into the classroom. Internet in education, mobile learning and finally the concept of e-Learning are just few of the tools in providing educational content to the learner in a good and effective way. A technological revolution has taken place in large parts of the modern world. Society has moved from a society characterized by the living conditions of industrialism to the present

Volume 8 Issue 5, May 2019

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knowledge society where creativity and ingenuity stimulates and drives the society (Hargreaves, 2003).

In the past years, e-learning strategies have been implemented in Institutions of Higher Education and companies whose goal is to provide an effective and efficient to for learning. In the region alone, there are already educational institutions who adopted this strategy of learning. In fact, its impact to students' academic performance have been monitored and evaluated so that the results would be a great input to the possible improvement and enhancement of the method used. Students, though they are aware of the implementation of e-learning tools in Schools and Universities, their knowledge, skills and attitudes would be an important factor in the implementation of such method. Likewise, the benefits that e-learning can bring not only to the institution but most importantly in the way the student's learn. Their perception and how they think of the method as a means of acquiring knowledge is a very good consideration in coming up with a project proposal to possibly adopt e-learning.

The Cagayan State University(CSU) as an institution of higher learning hopes to be one of the schools in delivering quality education to its students through massive technology-based learning. The fast growing of technology in terms of e-education will greatly affect the strategies and mechanisms in the teaching-learning process – thus creating a curriculum that is global in nature, therefore, it is imperative that CSU shall embrace the technology-based learning solutions that can make learning easier and faster and for the students to study on their own at their own pace.

2. Methods

This study was conceptualized to determine the attitudes and skills of students towards e-learning and the possible benefits that this tool can affect their learning.

To come-up with a reliable information, the survey method was used in the conduct of the study. The design was preferred to assess the attitudes of students towards e-learning.

The study employed a questionnaire to determine the skills and attitudes of students towards e-learning. The target participants were the students of the College of Information and Computing Sciences of Cagayan State University – Carig Campus. A total of forty (40) questionnaires were distributed to the students of the said College.

The main instrument in the conduct of the study was a questionnaire. The questionnaire composed of three parts. The first part includes the respondents' demographic profile such as gender and age. Part 2 composes of questions dealing with their skills and experiences related to e-learning while part 3 composed of questions with regard their attitudes towards e-learning. Each item in the questionnaire was rated based on a five-point Likert scale (1- strongly disagree, 2-disagree, 3-undecided, 4-agree and 5-strongly agree).

Descriptive statistics such as frequency count, mean and percentage distribution were employed in the analysis of the data.

3. Results and Discussions

Online learning has evolved because roots in the tradition of distance education, which it goes back at least 100 years to the early correspondence courses. With the advent of the Internet and the World Wide Web, the potential for reaching learners around the world increased greatly, and today's e-learning offers rich educational resources in multiple media and the capability to support both real-time and asynchronous communication between instructors and learners as well as among different learners(Means, 2010).

Table 1: Participants' Distribution according to Gender

Gender	Frequency	Percentage
Female	21	52.5
Male	19	47.5
	N=40	100%

Table 1 indicates that there is nearly an equal amount of males and females covered by the study with females and males comprising of 52.5% and 47.5% respectively. This shows that sexism is not an issue in the College.

Table 2: Students' Attitudes towards E-learning

Indicators	N	Mean
I am interested in studying some courses that utilize e-learning.	40	4.43
I can learn actively in the e-learning environment.	40	4.38
I have more opportunities to create my own knowledge in the e-learning environment.	40	4.33
Presenting courses on the internet, makes learning more efficient.	40	4.28
Online Learning is more comfortable and enjoyable to me.	40	4.23
The e-learning environment improves my thinking skills.	40	4.50
The e-learning environment enhances my problem-solving skills.	40	4.40
I am positive about e-learning.	40	4.20
E-learning environment needs advanced technical knowledge.	40	4.20
I would prefer to have some courses on the internet, rather than in classroom (face-to-face).	40	4.30
E-learning is not efficient as a learning method.	40	2.63
Online Learning is more comfortable and enjoyable to me.	40	4.28
E-learning is a favorable alternative to the pen-paper based system.	40	4.30
E-learning is efficient as a learning method.	40	4.25
Over All, I prefer e-learning and I believe that it is better than the traditional method of learning.	40	4.10

Table 2 presents the students' attitudes towards e-learning. It reveals that the overall attitude of the students towards e-learning is positive with a general weighted mean of 4.10. This means that students are open to the idea of using a technology-based approach in the teaching and learning process. They strongly agreed that e-learning can improve their thinking skills with a mean of 4.50. Furthermore, they also refute the idea that e-learning is not efficient as a learning method as indicated in the table with a mean of

2.63. Therefore, e-learning could be possibly implemented in order to modernize the tools and strategies for educating the students.

Table 3: Students' Skills

Indicators	N	Mean
I feel comfortable in my ability to do with computer technologies.	40	4.43
I enjoy using computers with my studies.	40	4.43
I usually use the Internet during my self-study.	40	4.40
Reading e-book is favored for me.	40	4.25
I download pictures, graphs, reports, assignments, course materials and presentations from the Internet.	40	4.23
I use electronic library in my studies.	40	4.25
I use different educational blogs for interaction.	40	4.23
I do not feel threatened by the effect of computer technologies.	40	4.25
I prefer to employ computer to write my assignments.	40	4.43
Normally, I download learning content from the Internet.	40	4.28
I believe that e-learning enhances my learning experience.	40	4.30
I would be very interested in studying courses that use e-learning.	40	4.25
I believe that convenience is an important feature of e-learning.	40	4.35
I use the internet to comply with my academic requirements.	40	4.25
Overall, I feel at ease learning by computer technology.	40	4.38

Students' skills on the use of computer technologies are presented in Table 3. The data shows that students are confident enough to say that they are comfortable with their abilities through the aid of computer technologies. Likewise, they enjoy using computers when they study their lessons with a mean of 4.43. Though, educational blogs are already part of the web, the students do not usually use these tools for interacting with other learners. Sometimes, they just download pictures, graphs, reports, assignments, course materials and presentations from the Internet when they need them in their learning process. Generally, the students' skills on computer technology had a great impact in the utilization of e-learning.

4. Conclusion

Improving the techniques and strategies in the teaching-learning process has been the focus of most institutions today. Developing new tools that will aid skill and knowledge transfer with less effort and time but with quality will totally modify the traditional approach of learning which are geared towards modernization.

The research found out that the student's skills can help in the implementation of e-learning while their attitudes towards e-learning are positive which means that they can actually adapt to a learning environment where lessons and topics are delivered online and where they can acquire skills and knowledge online.

Therefore, educational institutions shall be embracing the technology-based learning which is the e-learning since it can give a lot of benefits as follows:

- 1) It can allow students to learn on their own at their own pace without the intervention of teachers who at times are strict and unapproachable.
- 2) It can facilitate teaching and learning through a modernized tool that can aid the teachers in delivering their instruction.
- 3) It can improve the quality of education by providing improved informational content and learning approaches.
- 4) It can provide the students' information and communications technology skills. The students will be better equipped to contribute to the knowledge-centered society.

5. Acknowledgements

Any endeavor would not be made possible without the people who in one way or the other helped in the realization of one's work. Therefore, the researcher would like to convey his appreciation to the following:

First and foremost, to the **Lord Almighty God** for the wisdom, the strength and skills He bestowed upon me.

To my friends and my family for always there, for showing their full support in all my endeavors and for always inspiring me to do better.

References

- [1] Abdelrahim M. Zabadil & Amr Hussein Al-Alawi. University Students' Attitudes towards E-Learning: University of Business & Technology (UBT)-Saudi Arabia-Jeddah: A Case Study. International Journal of Business and Management; Vol. 11, No. 6; 2016 ISSN 1833-3850 E-ISSN 1833-8119 Published by Canadian Center of Science and Education
- [2] Amal Rhema and Iwona Miliszewska . Analysis of Student Attitudes towards E-learning: The Case of Engineering Students in Libya. Issues in Informing Science and Information Technology Volume 11, 2014.
- [3] Commission of the European Communities. (2007). E-skills for the 21st century: Fostering competitiveness, growth and jobs. Brussels. Retrieved from http://ec.europa.eu/enterprise/sectors/ict/files/comm_pdf_com_2007_0496_f_en_acte_en.pdf.
- [4] Ding Aixia and Dan Wang. Factors Influencing Learner Attitudes Toward E-learning and Development of E-learning Environment Based on the Integrated E-learning Platform, International Journal of e-Education, e-Business, e-Management and e-Learning, Vol. 1, No. 3, August 2011
- [5] Fatma Alabdullaziz, University of Northern Colorado. Instructors' and Learners' Attitudes Toward e-learning within a College of Education
- [6] Hargreaves, Andy (2003). TEACHING IN THE KNOWLEDGE SOCIETY, Teachers College Press, Teachers College, Columbia University.
- [7] Hsu, C. H. C. (1999). Learning styles of hospitality students: Nature or nurture? International Journal of Hospitality Management, 18, 17-30.

- [8] Hsu, C. H. C., & Wolfe, K. (2003). Learning styles of hospitality students and faculty members. *Journal of Hospitality & Tourism Education*, 14(3), 19-27.
- [9] Koller, Vinz, Harvey, Sandra and Magnotta, Micheline. (2001). "Technology-Based Learning Strategies". Social Policy Research Associates. ASTD/NGA, 2001.
- [10] Koory, M. (2003). Differences in learning outcomes for the online and F2F versions of "An Introduction to Shakespeare." JALN 7 (2)
- [11] Means, Barbara et.al. Evaluation of Evidence-Based Practices in Online Learning. Center for Technology in Learning. A Meta-Analysis and Review of Online Learning Studies 2010.
- [12] Michael Tagoe. Students' perceptions on incorporating e-learning into teaching and learning at the University of Ghana. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2012, Vol. 8, Issue 1, pp. 91-103.
- [13] Morse, T. (2003, April). *Design and implementation of a multimedia CD-ROM-based directed study preservice teacher education course*. Paper presented at meeting of the Mid-South Instructional Technology Conference, Murfreesboro, TN.
- [14] Olson, Jennifer. An Analysis of e-Learning Impacts & Best Practices in Developing Countries. Information & Communication Technology for Development, tism.msu.edu/ict4d, 2011.
- [15] Stern, Joshua. Introduction to Online Teaching and Learning Joshua Stern.
- [16] Uvalic, S. et. al. A Guide to Quality in Online Learning. 444 Castro Street, Suite 900, Mountain View, California, 94041, USA. Stamenka Uvalić-Trumbić Sir John Daniel Senior Advisors – Academic Partnerships
- [17] Vinz Koller Sandra Harvey Micheline Magnotta. Technology-Based Learning Strategies, 1330 Broadway, Suite 1426 Oakland, CA 94612 Tel: (510) 763-1499 Fax: (510) 763-1599 www.spra.com
- [18] Visalam, Archana P Kumar . Knowledge, Attitude and Practice towards E – Learning Among Medical Undergraduate Students. *IOSR Journal of Applied Physics (IOSR-JAP)* e-ISSN: 2278-4861. Volume 7, Issue 4 Ver. III (Jul. - Aug. 2015), PP 01-04 www.iosrjournals.org