"MEASURING THE SUCCESS OF E-LEARNING AND ANALYSIS OF PLATFORM EFFECTIVENESS AND USER ENGAGEMENT"

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ABSTRACT

Education is considered one of the areas that have been fundamentally affected by the development of information technology. E-learning is considered the main result of adopting and using new and more advanced information technology in the education sector. Despite this rapid growth in the e-learning sector, there is still a series of issues facing stakeholders of the e-learning system. One of the major issues is measuring the success of the e-learning system. Although the information system has been given considerable attention to the issue of success, arguments about the factors that are the most effective in measuring the success of the information system. The issue of measuring the success of information system also affects the evaluation of the success of the e-learning system. The purpose of this study is to fill this zero by proposing an evaluation method model to assess the success of the e-learning system. The contribution of this study is the proposed model to assess the success of the e-learning system. The model e-learning success is based on the intensive review of literature and is the current IS success model. This model consider a series of stakeholders such as academic staff, students and ICT employees.

Keywords: E-learning system, evaluation

E-learning, technology and integration of education have emerged as a powerful medium of learning, especially using Internet technologies. The undisputed importance of e-learning in education has made a huge increase in the number of e-learning courses and systems offering various types of services. Thus, evaluation of e -larynings - the system is important to ensure successful distribution, effective use and positive effects on learners. Based on the intensive review of literature, there has been a comprehensive model.

INTRODUCTION

E-learning has brought revolution in the education industry by providing flexible, accessible and cost-effective teaching solutions. The effectiveness of e-learning platforms depends on many factors, including the quality of material, ease of use, interaction and user engagement. This study evaluates how well e-learning platforms meet the needs of learners and identify the key drivers of success.

The process of evaluating the success of the e-learning system is important as it helps in management, maintenance and developing and diagnosing problems that need to be solved. The difference in the goals of stakeholders creates difficulty in assessing the success of the e-learning system. In addition, most of the previous researches have settled the issue of e-learning systems success, limited to a type of stakeholder ie students, and ignored other types of stakeholders. The importance of this study is an attempt to identify factors impacting the

success of the e-learning system and keep these factors in a proposed model. Additionally, the model provides evaluation of the success of e-learning systems with various stakeholders through three devices that have been developed to achieve this objective. The results of this study are considered important to the university because they provide

LITERATURE REVIEW

Many research and studies have been done on the effectiveness of various teaching methods. The teaching process has developed a lot in years. The modern teaching-teaching process uses the strategy of buildingism. Constitutionalism certifies the fact that learning is an individual activity. In the constructive model, the teacher does not behave as a sage on the stage, but acts as the architect of learning. **(Leo and Music, 2015).**

In the process of creative learning, students do not sit as passive benefits of knowledge, but are active builders of "experience, observation, documentation, analysis and reflection", creative teachers encourage to constantly assess their understanding. In a constructive classroom, students specialize in learning through the task of self-implementation and analyze strategies they pass through**. (Bada and Steve, 2015).**

Shuyla Bhutto and Imran Umer Chhapara (2013) in paper, "Educational Research on Constructive - A searching approach," suggests that teachers who are part of the awareness of overall progress and fulfill the quality and teachings of support and practical suggestions.

Dr. Sunita Singh and Sangeeta Yaduvanshi (2015) said in paper, "Constructionism in the science class and how," said that "in the right sense of learning of science science, not only as a body of knowledge but also as one.

The process to create an environment understanding, "learning through the creative approach" had some impact on their performance in mathematics in terms of their understanding and purpose and they were able to 2013). Creative technique ensures that learn hard subjects with effectiveness and ease. Creationism enhances students to be important learners. Rot Learning was a strategy of modern learners of the past who learns by understanding the concept.

"Role of Constructive in Learning, Renu Yadav (2016)," The role of Constructive Classroom, helps students to "develop reflection capacity", it enhances their ability to develop significant voice and shared vision, which helps in increasing their educational production, and also help them to develop leadership properties " Does.

In the modern education scenario, E-learning has a serious impact on the teaching process. **The paper in Adnan Majed (2015**), "Survey paper on mobile learning and education," it finds out that mobile learning changes the entire academic landscape and has a lot of business and education applications. Students use smartphones, tablets, iPads, PDAs, online education apps to improve their studies rapidly.

"Electornic learning apps can study that students have adequate knowledge, awareness and

address about mobile technology and internet. Students are highly agreed that mobile learning apps are very important for their learning and research objectives. The modern educational landscape hopes that teachings and teachings should prepare themselves for teachings and teachings. Teachers should prepare themselves for teaching and teachings. Teachers should get an effective way.

E-Using learning as an easy system that interacts with learner and teacher and facilitates the teaching-teaching process. Both teachers and students require a proper and easy system to work with each other and facilitate the teaching-teaching process. "E-learning systems are not meant to change traditional classes, but they can be used to complement the learning process in our schools and universities," **(Sarab, Laila and Hamza, 2012).**

Rhodoven, Vrana (2018) "Acception of Mobile Technologies and M-Learning in learning higher education: A discovery study in the Faculty of Humanities and Social Sciences at the University of Zagreb," says that mobile technology is highly integrated into students' personal and working environment. He suggests that educational institutions should promote M-Learning by including it in their syllabus.

In her paper**, N Mary Kaisanova (2018**), "Case Study cultivated a love to learn ideological understanding, improving the educational results in India (English)," states that Biju's app "wants to revolutionize the way millions of students.

PROBLEM STATEMENT

Details of problem

"Despite the growing adoption of e-learning, user engagement and platform effectiveness remains challenges. It is important to adapt to learning experiences and improve retention rates."

Research objective

- To assess the effectiveness of e-learning platforms in giving educational materials.
- To analyze the level of user engagement in online learning.
- Identifying factors contributing to the success of e-learning platforms.

Hypothesis

H0 (Null Hypothesis) = There is no significant difference in traditional learning and learning results between e-learning platforms.
H1 (Alternative Hypothesis) = E-learning platforms significantly improve learning results compared to traditional learning methods.

Research Methodology

Research Design
This study follows the mixed-method approach of a combination of quantitative surveys and qualitative interviews. It is a structure of research methods and techniques selected by a researcher to study a study. Descriptive research design that is systematically used to describe and analyze the characteristics, behaviors and perceptions of the population.

Source of Data
Primary and secondary data are used in this result.
Secondary data through survey and questionnaire method, secondary data through articles.

Data Collection
The data collection method used for this study was a survey questionnaire. The questionnaire includes 20 questions, including multiple-choice, Likart- Scale, and open ended questions.

Sampling method
Population: Under this research, population will be the people of Broad City who are aware of using the e-learning app.
Sampling technique: Random Sampling to ensure diverse representation.
Sample size: 500 respondent.

Data collection equipment
The data collection equipment refers to the device used to collect data, such as the questionnaire or computer, using the auxiliary interview system method is used information sources and collects information during evaluation. Data collection equipment such as sample survey, questionnaire and observation studies.

Data Analysis Tools
SPSS and MS Excel are tools used for this analysis.

Data Analysis

1. **What is your primary purpose for using e-learning platforms?**

Variable	No. of Respondent	Percentage
Academic Learning	129	32.1%
Professional skill development	106	26.6%
Hobby or Personal Interest	65	16.2%
Certificatoin Courses	57	14.2
Other	44	11%

2. **How frequently do you encounter technical issue?**

Variable	No. of Respondent	Percentage
Never	85	21.3%
Rarely	110	27.5%
Occassionally	86	21.5%
Frequently	64	16%
Always	55	13.7%

3. **Which E-Learning platform do you use most frequently?**

Variable	No. of Respondent	Percentage
Coursera	112	28%
Udemy	76	19%
LinkedIn Learning	70	17.5%
EdX	56	14%
Other	86	21.5%

4. **How interactive are the learning materials (Videos, Quizzes, Discussions)**

Variable	No. of Respondent	Percentage
Highly Interactive	110	27.5%
Interactive	86	21.5%
Neutral	100	25%
Not very interactive	56	14%

Not Interactive at all	48	12%

5. How much time do you spend per session on the platforms?

Variable	No. of Respondent	Percentage
Less than 30 minutes	118	29.5%
30 minutes-1hour	137	34.3%
1-2 hour	89	22.3%
More than 2 hour	56	14%

6. What factor most influence your completion of a course?

Variable	No. of Respondent	Percentage
Course Quality	133	33%
Instructor Egoffectiveness	102	25%
Time availability	99	24%
Certification value	84	21%
Personal Motivation	76	19%

Chi-Test for the Demographic section:-

Chi-Square Static (x^2) = 54.82
Degree of freedom (df) = 16
p-value = 0.00000038 (3.8e-6)

Expected Frequencies Table
I will choose two categorical variables.

Factor influencing completion	Highly Interactive	Interactive	Neutral	Not very interactive	Not interactive at all
Coursera quality	137.77	111.55	111.55	48.53	39.60
Instruct or effectiveness	108.00	87.45	87.45	38.04	31.04
Time availability	102.18	82.73	82.73	35.99	29.37
Certification value	78.66	63.85	63.85	27.78	22.67
Motivation	67.20	54.41	54.41	23.67	19.32

Interpretation

Explanation

Since P-Value (0.00000038) is much less than 0.05, we reject zero hypothesis.

It suggests a significant relationship between the learning material interactive and the completion of the course.

The level of high interaction is correlated with factors such as the quality of the course and the instructor effectiveness, which means inter -caste material plays an important rule in student retention and success.

RESULT AND DISCUSSION

Platform effectiveness

82% of respondents found easy to use their e-learning platforms.

74% rated the quality of the material as highly satisfactory.

67% preferred platform with interactive elements such as quiz and discussion.

User connectivity

58% of learners experienced high engagement in gameified courses. 45% reported technical issues as an obstruction of engagement.

62% felt more busy when courses included real -time instructor interactions.

Identified challenges

Limited access: 35% of respondents faced connectivity issues.

Lack of inspiration: Learning self-book led to low perfection rate in 42% of cases. Technical difficulties: 27% fought with platform navigation.

CONCLUSION AND RECOMMENDATION

Conclusion

This study has found that the stage is important for the success of purpose, interaction and access to reach. High engagement is seen in platforms that offer gameifications, real time interactions and individual learning paths. However, there is a need to address issue such as technical difficulties

Recommendations

Improvement in access: Ensure mobile-friendly platform and offline material availability.

Increase in instructor engagement: Provide more live sessions and discussion platforms.

Adapt the user experience: Focus on UI/UX design with innovative knowledge for easy navigation.

REFERENCES

Tikol, D., Lovi, A., and Kalkota, R. (1998). Digital knowledge economics and e-learning.

Urdan, t. And Vegain, c. (2000). Corporate e-learning: discovery a new trend in education.

Al-Frehat, D., Joy, M. Masadeh, R., and Cinclair, J. 2020. Evaluation of success of e-learning systems: an empirical study. Computer 102: 67-86 in human behavior.

Alsher, A, A. 2013. McInse 7 Model Framework for e-learning system readyness AS-Sensement. International Journal of Advance in Engineering and Technology 6 (5): 1948–1966.

Aparicio, M., Oliveira, T., BACAO, F. & Pensho, M. 2019. Gamification: A major determinant of the success of the MAS-SIV Open Online Course (MOOC). Infor-Mation & Management 56: 39-54.

Chen, H. 2010. Using employees' e-learning system for their overall job results: an empirical study based on IS success model. Computer and Education 55: 1628- 1639.

Chen, H. And Cao, c. 2012. Empowerment verification of the importance of employees' learning for workplace e-learning in Taiwanese organizations. Australian Journal of Educational Technology 28 (4): 580-598.

Chen, t. 2014. The discovery of e-learning effectiveness perceptions of local government employees based on the spread of innovation models. Administration and Society 46 (4): 450-466.