

University of Wales

Trinity Saint David

Assessment

On

**Impact of Digital Platforms on
Learning and Teaching a Case Study
of learning Moodle**

Module name: Digital skills and research method

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Research Title: Impact of Digital Platforms on Learning and Teaching a case study of learning Moodle

1.1 Introduction

The education industry has widespread difficulty with both the staff and the process of adjusting to modern technology platforms. Digital Transformation is a concept that aims to use digital technology to transform all aspects of an organization. This notion encompasses online platforms, digital tools, digital data, digital technology, and digital media, all of which contribute to the business's Digital Transformation (Aikina & Balanovskaya, 2020). It affects how educational institutions work, as well as how students connect and share knowledge and how they connect with other various stakeholder groups. The advancement of current digital platforms leads to Moodle being a free learning system that supplies a platform for e-learning. It helps multiple educators in conceiving various programs, course structures, and content, allowing for more effortless engagement with online students.

1.2 Rationale

As a result, the success of online teaching is dependent on many factors, including a well-formed diagnostic analysis, the amount of engagement in the learning strategy, the degree to which the teacher engages learners, learning materials, and final assessments of educational goals (Chen, 2021). This research will help implement a digital learning strategy for the Moodle platform for education by showing why and how the digital teaching and learning process can help students, instructors, and schools.

This study aims to decide the factors that contribute to Moodle's success as a digital learning platform. It concentrates on how digital platforms may promote and contribute to five unique education priorities: improving attainment, addressing inequities and promoting inclusion, easing transitions into jobs, increasing parental participation, and improving education system performance.

Objective

The primary goal of this study is to evaluate the influence of digitalization on education and learning using Moodle as a case study for an e-learning platform.

2.1 Literature Review

The digital economy has resulted in substantial socio-economic transformations in many sectors of our schooling society and lives. Although there is a growing body of information on the impact of using digital platforms on education and training, none of it is comprehensive from a

development standpoint. The present educational system and many aspects of life have been transformed by rapid digital technology progress. Regarding studying and evaluation value, the Moodle platform education has grown worldwide and dominates some of the most influential and valued institutions (López-Tacon, 2021). Digital platforms have three main factors: they are digitally mediated, enable groups to connect and allow those users to complete set tasks.

2.2 Digital platforms as IT artifacts

Platforms have different technological qualities depending on their nature and purpose. Digital learning systems are classified into two types based on their primary function: transaction and innovation systems. Although digital platforms are technical artifacts, they rarely live in isolation. At the most basic level, they exist within a close network of stakeholders who are linked and interact in intricate ways (Chen, 2021). Their presence, use, and evolution are decided by a broader range of economic, organizational, institutional, and spatial dynamics that have development consequences. Digital learning platforms are IT artifacts that serve a particular purpose and are made possible by specific digital traits or properties. By use of Moodle, the digital platform interacts with the ecosystems of direct learners and a broader network of educational, organizational, institutional, and spatial forces.

However, the socio-technical framework whereby developmental results influence digital platforms' function. When these features generated from systems as IT artifacts and supporting socio-technical factors are combined, they may supply specific development results (López-Tacon, 2021). This comprehensive understanding informs the analysis of the research on platforms and developments of digital platforms, which allows us to produce many essential features that describe this material.

2.3 Improving the efficiency of the education system

There is compelling evidence that employing digital equipment and personnel to prepare for teaching could improve the efficiency of online education using digital platforms. There is also some qualitative research that digital platforms and resources help instructors and learners perform a better job in terms of teaching, assessment, and learning and growth. Technology should be more like air in education: invisible, essential, and always present. Technology shouldn't be used to drive change; instead, it should be used to ease it. Because technology is constantly evolving, it is pointless to consider current technologies as an endpoint rather than a step toward more innovation (Mpungose, 2020). Learning environments should take

advantage of technological advances such as digital teaching systems such that students may easily transition between the digital and real world.

Technology will undoubtedly help the idea of continuous learning in many ways. The effective use of technology can promote individual learning and make it possible to do so anywhere, at any time, and anywhere (Popovic et al., 2018). Technology can keep people up to date on essential facts and, more significantly, supply access to higher education no matter where people are.

2.4 Innovation platforms

Moodle and other innovation platforms serve as "foundations" for other companies to build related products, services, or technology. As a result, an innovation platform's technical design includes modules, or basic blocks, accessible, innovative capabilities. Developers of applications and services (complimentary) could then access and mix these modules to create new services and applications (platform complements) (Chen, 2021). Platform literature often uses innovative management and software design engineering ideas in the instance of innovation platforms.

According to the paper, platforms are viewed as modular systems divided between a core and perimeter and managed directly by a platform authority. Modules accessible through interfaces and integrated by programmers (complementors) to create innovative apps and services make up the platform's basic architecture (Aikina & Balanovskaya, 2020). These applications and services, from an analysis, are part of the innovation platform's periphery design, which is distinct from the hardware platform. The modules that make up the core architecture of a Moodle platform digitalization often have functionality that could be accessible by programmers (complementors), who mix and develop them as services and applications in the periphery architecture. It is what most business platforms, like Google's Android and Apple's iOS, look like. The platform owner (the platform operator) is usually the one who obtains and uploads these modules.

3.0 Methodology

3.1 Research design

Descriptive research seeks to decide what, where, and how a phenomenon occurs (Chen, 2021). As a result, with a focus on the Moodle platform, this research study was able to clarify the findings about the effect of digital services on research and education. As a result, this technique is suited for this research, aiming to collect comprehensive data through the

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description, which will aid in factor identification.

3.2 Target Population

Learners who use the Moodle Platform are the study's target audience. A group of individuals with common characteristics is referred to as a population. It's a group of people or items with similar character qualities. The participants in this study will primarily be Moodle Platform users that are primarily learners.

3.3 Sample Size Determination

The researcher will use a census technique to pick Moodle users" from different departments in the sample because the target population would be modest and manageable. The census technique finds groupings within the population and respective proportions and then selects a representative from each group (Chen, 2021). It divides a population into distinct homogeneous subgroups with similar traits.

3.4 Sampling procedure

The method of gathering information about the population by investigating a subset is known as sampling. For inquiry, the researcher often chooses only a few items from the cosmos. The research was carried out across departments in the university. It will employ both probability and non-probability sampling (Mpungose, 2020). The study used the Moodle platform's Users were chosen using a simple random selection method. A sample of learners will fill out the questionnaire from the chosen Moodle platform. As a result, the sample's representation increased, and bias was reduced.

4.1 Data collection

The primary data collection method mainly used observations on things that can be discerned by viewing. Secondary data collection includes the use of information from existing literature. It has records of the various user and Moodle platform user groups, records from the learners and users on the ground, and individuals' records related to the subject matter. There was also other literature such as books, journals, newspapers, and reports to get the necessary information. It includes online enrolments data, digitization action strategies, institutional acts, census statistics, and other online library records (Popovic et al., 2018).

4.2 Data analysis

According to the goals, the data was coded, revised, tallied, and structured. Statistical software for social sciences was used to organize and analyze the data, and frequencies and percentages were calculated (Chen, 2021). Tables were used to convey the data at the end.

Because it is simple to use and takes various data, SPSS was chosen.

5.1 Conclusion/Recommendation

The fourth education revolution relies heavily on digital platforms and technologies. They are essential in educational and institution setups and education sectors since they are essential to comprehensive socio-educational processes and long-standing political and social interactions. As a result, a growing body of multidisciplinary studies is looking into the impact of the digital economy on several aspects of educational development (Aikina & Balanovskaya, 2020). However, the literature on digital services is fragmented, with various points of view.

To reap the benefits of digital platforms, you'll need specific technical ability. A governmental strategy to address prejudice in the platform economy's labor market will be to improve digital skills in various forms of training (Mpungose, 2020). The impoverished will be able to articulate themselves and engage in different sorts of income-generating activities in the digital economy. In the digital future, policies and regulations should stimulate new types of education at schools and implement new learning areas on platforms while also preventing tax avoidance and monopoly power of massive platforms.

Although the Web of Science has a significant amount of research, it may be necessary to expand the investigation beyond scientific publications to include supplementary material, including reports from international agencies, books, and other theoretical studies. Extensions to this literature analysis are often needed, mainly focusing on developing nations, due to the rapid growth in research on digital platforms. On digital platforms, there is an increasing amount of gray literature. While most of these publications are excluded from our systematic study, there is considerable evidence of development policies and importance in these topics. Future studies should concentrate on broadening the study's scope to encompass other areas of development.

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Reference

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- Chen, F. H. (2021). Sustainable Education through E-Learning: The Case Study of iLearn2. 0. *Sustainability*, 13(18), 10186.
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Popovic, N., Popovic, T., Rovcanin Dragovic, I., & Smiljanich, O. (2018). A Moodle-based blended learning solution for physiology education in Montenegro: a case study. *Advances in Physiology Education*, 42(1), 111-117.

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Appendix: Questionnaire

Student Name: _____ Student ID: _____

Module Name: Digital Skills and Research Methods Term 2 Group: _____

I am a student pursuing _____ at school of _____ I am carrying out research to access the impact of Digital platforms on learning and teaching a case study of learning Moodle. All information given will be used purely for academic purposes and is therefore confidential.

Thank you.

Please complete the questionnaire by ticking the proper answer or write your answers in the space provided.

PART A: General Information

1.Which age group do you belong to?

Under 25-year-old 26- to 40-year-old 41- to 54-year-old over 54-year-old

2.What is your gender identity?

Female Male

3.Have you used the Moodle Platform before?

Yes No

If yes how many times or how often?

Once

Twice

Frequently

4.Which of these support tools helped you the most during this school term?

Library

Module

Others Specify

PART B: MY KNOWLEDGE HAS INCREASED FROM ALL THE LESSONS LEARNED IN THE MODULE “DIGITAL SKILLS AND RESEARCH METHOD”

The following Questions consist of Statements. Please indicate to which level you agree or disagree with the statement by ticking on the appropriate cell. 1 = Strongly disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, 5 = Strongly Agree.					
	5	4	3	2	1
Module Plattform is the best. digital platform.					
I use Moodle in all my learning tasks.					
Moodle has wide variety of sub Modules for learning.					

PART C: I FOUND THE UWTSD TOOLS AND RESOURCES PROVIDED BY MOODLE USEFUL

The following questions consist of statements. Please indicate to which level you agree or disagree with the statement by ticking on the appropriate cell. 1 = Strongly /;;disagree, 2 = Disagree, 3 = Neither Disagree nor Agree, 4 = Agree, 5 = Strongly Agree.					
	5	4	3	2	1

The digital learning UWTSD tool was very easy					
The digital resources provided by UWTSD are resourceful.					
The digital UWTSD Tools was less demanding when using it.					

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The Question were compiled from:

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