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DIGITAL SKILLS AND RESEARCH METHODS

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DIGITAL SKILLS AND RESEARCH METHODS: INVESTIGATING THE IMPACT OF VLE (MOODLE) ON STUDENT LEARNING EXPERIENCE AT UWTSD LONDON CAMPUS

Executive Summary

Ascertainment of the impact that VLE has had on the learning experience of students has become a crucial area of research due to the educational disruption caused by Covid-19. One of the major reasons why universities have incorporated VLE within their teaching practises to cope with the pandemic is its ease of accessibility. This report focuses on evaluating primary along with secondary sources of data to assess the impact that VLE has had on the learning experience of students at the “University of Wales Trinity Saint David London Campus”.

Table of Contents

1.0 Introduction (Abstract)	3
2.0 Background	3
Literature Review	3
3.0 Aims and Objectives	5
4.0 Method	5
5.0 Results	6
6.0 Discussion	15
7.0 Conclusion	16
Future Work/ Recommendation	16
Reference List	17
Appendices	18
Appendix 1: Questionnaire	18
Appendix 2: Completed Surveys	20

1.0 Introduction (Abstract)

The ongoing pandemic caused by Covid-19 outbreak has made it essential for organizations and educational institutions alike to modify their practices. Moodle is considered to be one of the most effective and flexible VLE that has been designed to provide support to “face-to-face teaching” making it an easy and highly versatile platform. In this context, the “UWTSD London Campus”, has incorporated the utilisation of “Virtual Learning environment (VLE) Moddle” as its teaching practice to increase student engagement and facilitate learning. **The findings from this research would play an indispensable role in the future decisions made by UWTSD London Campus regarding its future teaching practises.**

2.0 Background

Literature Review

Virtual Learning Environment (VLE) is considered to be an online education platform that provides additional support to learners to improve their studying experience. Herrera Mosquera (2017) noted that VLE enables students and teachers to effectively upload and download assignments and resource materials making it easy to complete one's learner needs. This is advantageous for keeping an automated track on the number of assignments submitted by each learner as well as in monitoring their performance effectively. Hettiarachchi and Wickramasinghe (2016) focused on studying the impact that virtual learning has on improving quality of learning for higher education. This study found that all educational institutions need to integrate VLE into their teaching practises and allow it to become a global knowledge sharing platform. Results for the research conclude that Moodle is preferred by higher education students due to its variety of course tools supported by an average of 4.63 responses. Rienties and Toetenel (2016) noted that students who are not well adapted to the process of using newer platforms like VLE (Moodle) may face difficulties in coping with their fellow learners. This may have a negative impact on their academic performance. Chen (2016) established that VLE is a comparatively different learning experience for students. On the other hand, Lyndon and Hale (2014), focused on ascertaining how VLE can have an impact on the learning and teaching practise for a specific module. This study found that online learning platforms are popular among students studying in UK as it offers a greater sense of flexibility, increased higher learning skills like critical thinking and research as well as creation of a sense of community. It highlights the significance of collaboration, communication and knowledge that is focused by VLE platforms. The ability to use interactive online activities through VLE is a major advantage that enhances the learners' experience.

It is essential for universities to ascertain the degree of satisfaction and nature of experience that students have through the use of VLE platforms like Moodle. In this context, Chua and Montalbo (2014) identified the level of satisfaction students' gain during using Moodle and customising the same for meeting graduate students' learning requirements. The researchers found that VLE is an effective tool that supplements traditional classroom teaching to enhance student satisfaction rates.

A positive attitude has been observed towards the incorporation of VLE with classroom teaching. However, Tsay *et al.* (2020) observed that higher education learners often portray higher levels of performance and learning while using gamified system's use during the initial period of time it is introduced. The study found that students had a higher level of motivation while using gamified systems indicating sustained engagement after overcoming the novelty effect. The study concluded that students perform better when they have a gamified condition as compared to non-gamified conditions during learning. This further supports VLEs like Moodle as highly productive and effective tool for increasing student experience, engagement and motivation levels.

Al Asraj *et al.* (2011) noted that although the education sector has witnessed technology disruption, appropriate investment in term of finances and training and

resource management have not taken place. It was identified that VLE platforms have been utilised by higher educational institutions along with changes in the teaching practises to facilitate learning. However, there is little evidence on the significant influence that it has had on improving administration and gaining its benefits suitably. The researcher found that present implementation practises and use of traditional teaching methods have diminished the effective implementation of VLE indicating a need for transforming teaching styles in universities for the same. . Due to increased accessibility to a wider pool of academic resources, students are able to widen their knowledge and improve their learning experience. Nguyen *et al.* (2017) noted that learners have learnt to adapt and become flexible to newer teaching methods through VLE. This has become essential due to the “educational disruption” caused by Covid-19 making it unavoidable for universities to incorporate VLE as a part of their teaching method.

3.0 Aims and Objectives

The aim of this study is to investigate the influence that VLE (Moodle) has on the learning experiences of students at UWTSD London Campus. The key objectives are:

- To create a questionnaire for collecting “primary data”
- To conduct the survey online
- To analyse the quantitative data using MS-Excel
- To establish and discuss key findings
- To gather secondary data and describe its findings
- To compare the findings for “primary and secondary data”
- To draw conclusions and provide recommendation for further study

Gantt Chart (Milestone)

Tasks	Wk1	Wk2	Wk3	Wk4	W5	W6	W7	W8	W9
Design Questionnaire									
Send Questionnaire									
Collect Primary Data									
Data Analysis									
Findings									
Literature Review									
Compare two findings									
Discussions									
Conclusion									
Recommendation/Future Work									

4.0 Method

This report focuses on critically evaluating the impact that VLE has had on the students and their learning experience with the aid of “primary and secondary data collection methods”. “Primary data” has been congregated in the form of an online

survey distributed among students of “UWTSD London Campus” while “secondary data” has been gathered through peer-reviewed academic journals. The questionnaire was designed being mindful of gathering demographic details of the student to gain an improved perspective on the age and gender of students studying at UWTSD London Campus. The questions focused on identifying the extent to which students were comfortable in using Moodle and whether they have previous experience of learning using the platform. The students were offered to mention key issues that they face while using Moodle to cover all aspects of their learning experience. The research was conducted in UK and questions were closed-ended except for the last one which provided students with an opportunity to share their concerns. MS Excel has been used to conduct a frequency analysis. Graphs and tables have been used to present evidence from the data appropriately.

5.0 Results

1. Are you a :			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Male	18	30	60%
Female	12	30	40%

Table 1: Gender

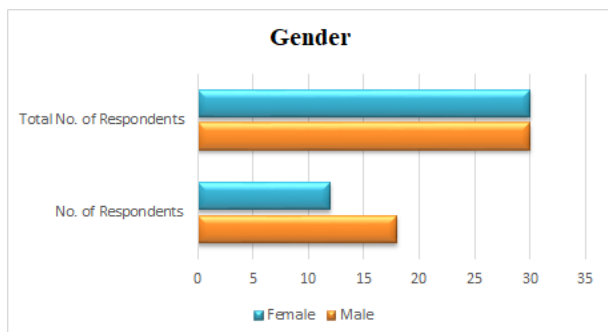


Figure 1: Gender

2. What is your age?			
Choices (in years)	No. of Contributors	Total No. of Contributors	Percentage
Below 26	1	30	3.33%
27-33	17	30	56.67%
34- 39	11	30	36.67%
40 and above	1	30	3.33%

Table 2: Age

Figure 2: Age

3. Have you ever used VLE learning methods before on other courses?

Choices	No. of Contributors	Total No. of Contributors	Percentage
Yes	17	30	56.67%
No	13	30	43.33%

Table 3: Prior use of VLE learning methods

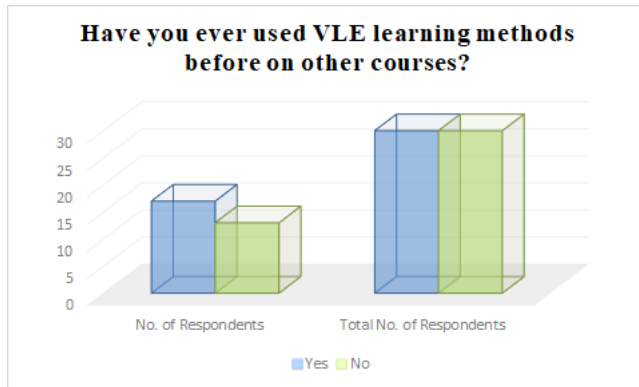


Figure 3: Prior use of VLE learning methods

4. Research for the course through VLE is easy			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	4	30	13.33%
Agree	17	30	56.67%
Neutral	1	30	3.33%
Disagree	5	30	16.67%
Strongly Disagree	3	30	10%

Table 4: VLE is easy for course research

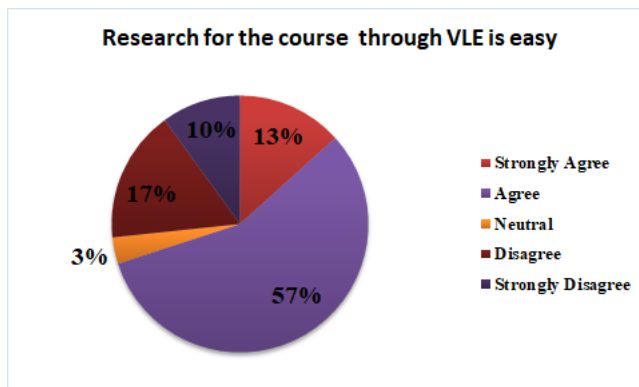


Figure 4: VLE is easy for course research

5. Learning with VLE results in your study approach being easier			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	5	30	16.67%
Agree	13	30	43.33%

Neutral	3	30	10%
Disagree	6	30	20%
Strongly Disagree	3	30	10%

Table 5: Learning with VLE makes study approach easier

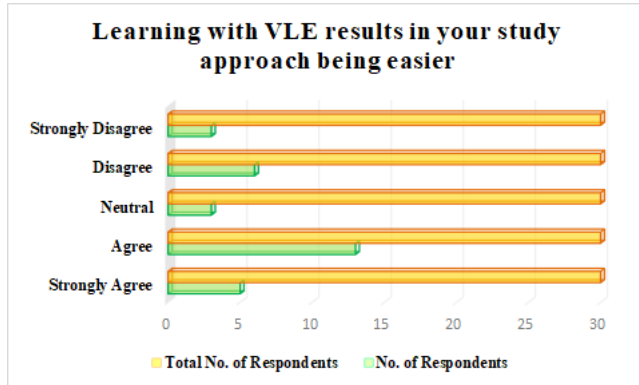


Figure 5: Learning with VLE makes study approach easier

6. VLE increases student motivation			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	5	30	16.67%
Agree	15	30	50%
Neutral	3	30	10%
Disagree	3	30	10%
Strongly Disagree	4	30	13.33%

Table 6: VLE increases student motivation

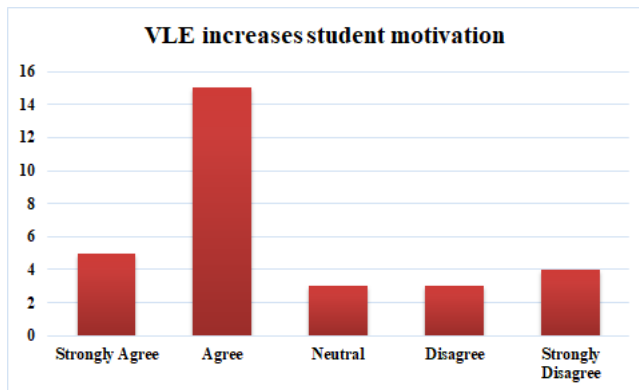


Figure 6: VLE increases student motivation

7. VLE access comes easy to me			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	7	30	23.33%
Agree	17	30	56.67%
Neutral	1	30	3.33%
Disagree	4	30	13.33%
Strongly Disagree	2	30	6.67%

Table 7: VLE access is easy

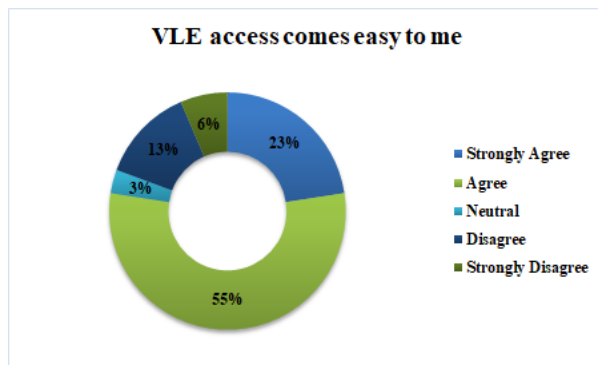


Figure 7: VLE access is easy

8. VLE is hard for foreign students			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	4	30	13.33%
Agree	5	30	16.67%
Neutral	3	30	10%
Disagree	11	30	36.67%
Strongly Disagree	7	30	23.33%

Table 8: VLE is hard for foreign students

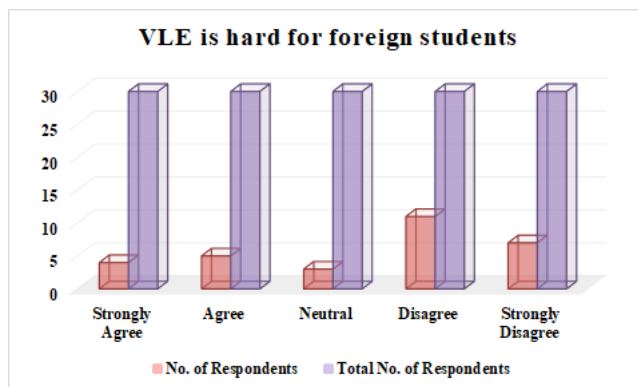


Figure 8: VLE is hard for foreign students

9. Internet accessibility is one of the biggest issues on VLE			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Strongly Agree	9	30	30%
Agree	13	30	43.33%
Neutral	2	30	6.67%
Disagree	4	30	13.33%
Strongly Disagree	2	30	6.67%

Table 9: Internet accessibility is one of the biggest issues on VLE

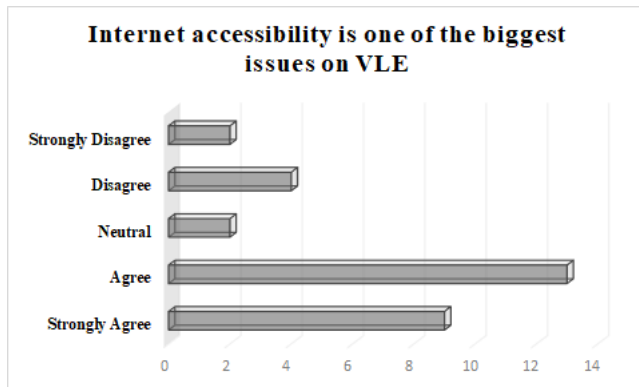


Figure 9: Internet accessibility is one of the biggest issues on VLE

10. I use VLE (Moodle):			
Choices	No. of Contributors	Total No. of Contributors	Percentage
Daily	16	30	53.33%
2-3 times a week	11	30	36.67%
Rarely	3	30	10%
Never	0	30	0

Table 10: Frequency of using VLE (Moodle)

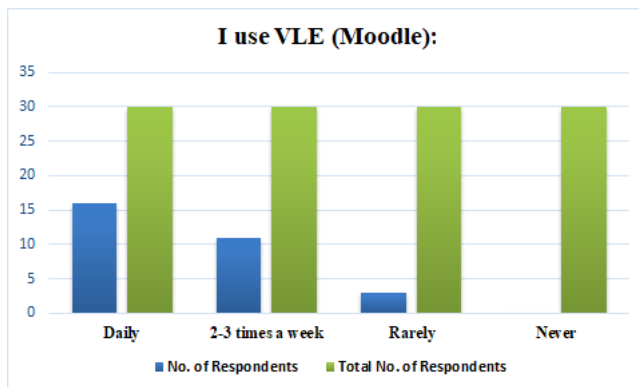


Figure 10: Frequency of using VLE (Moodle)

6.0 Discussion

Findings from the survey indicate that majority of learners at UWTSD London Campus are male while the youngest student is 26 years and the oldest is 40 years. On being asked whether doing research for the course was an easy process through the new VLE, mixed results were observed. 56.67% and 13.37% felt that it was relatively easy to use VLE for course research. It is thereby evident that although a significant portion of learners can use VLC with ease for their research activities. Hettiarachchi and Wickramasinghe (2016) ascertained that it is necessary to ensure

that the learners facing difficulty in using VLE for their research be provided with additional support. The primary study found that 50% agree while 16.67% strongly agree that learning using VLE has made their approach to studying easier. On being asked whether it is easy for learners to access VLE, it was noted that 13.33% and 6.67% students however found it difficult to access VLE indicating that they can benefit from additional support to understand the process of using VLE. Murillo-Zamorano *et al.* (2019) asserted that utilisation of VLE may not be convenient for students that do not have access to a steady internet connection. This has a detrimental impact on the ability of learners without proper internet access to complete their assignments and use available resources within VLE for their academic activities. It has been ascertained that 36.67% and 23.33% disagreed that it is difficult for foreign students to use the platform. This can be because elaborate instructions have been provided to access the same and being a virtual platform it is easily accessible online for students located in different geographic locations.

In order to ascertain whether students have been impacted positively by VLE (Moodle) it is necessary to identify the number of times it is used by learners. Tsay *et al.* (2020) asserted that after a period of time, it has been noted that learner engagement and productivity using the same for their learning activities gradually decline after a few weeks indicating the novelty effect. The survey found that the majority of students use VLE (Moodle) daily with 53.33%. This is followed with 36.67% of responses indicating use of VLE 2-3 times a week while 10% rarely use the same. It is thereby evident that the majority of learners make effective use of VLE (Moodle) while there is a significant number of learners that need to increase their frequency of usage to study. The key issues faced by learners while using VLE has thereby been observed to be due to internet issues and difficulty navigating through the portal for research purposes. Butcher *et al.* (2019) identified that VLE enables students to develop effective digital skills enabling them to be prepared for their careers. It enables learners to effectively utilise digital platforms and develop their analytical and research skills digitally.

7.0 Conclusion

The report thereby concludes that VLE is an insensible part of the teaching practices used by universities due to Covid-19. Analysis of primary data shed light on the easier accessibility and ability of doing research for coursework through VLE and its impact on the learner's experience. Thus, it can be concluded that VLE has a positive experience on learners as they gradually adapt to the use of virtual platforms for their learning processes.

Future Work/ Recommendation

According to Huang *et al.* (2020), the covid-19 outbreak has made it inevitable for universities to refrain from using VLE. It has provided learners with an online education platform wherein they can access their study materials and complete their assignments on time. It has enabled them to gain an in-depth understanding of their course requirements. It can thus be recommended that teachers focus on

transforming their teaching style to integrate VLE (Moodle) and enhance engagement and learning experience of their learners. Through technological intervention within the education sector, the process of knowledge and education transmission can be enhanced significantly.

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Appendices

Appendix 1: Questionnaire

Questionnaire

Impact of VLE (Moodle) on Students Learning Experience at UWTSD London

Are you a :

FEMALE ☐ MALE ☐

What is your age?

Have you ever used VLE learning methods before on other courses?

YES ☐ NO ☐

Now please, tick off in the following question the option that best suits your opinion :

STRONGLY AGREE AGREE NEUTRAL DISAGREE STRONGLY DISAGREE

Research for the
course
through VLE is easy

☐☐☐☐☐

Learning with VLE
results in
your study approach
being easier

☐☐☐☐☐

VLE increases student
motivation

☐☐☐☐☐

VLE access comes easy
to me

☐☐☐☐☐

VLE is hard for foreign
students

☐☐☐☐☐

Internet accessibility is
one of the biggest
issues on VLE

☐☐☐☐☐

