



PRIFYSGOL CYMRU

Y Drindod Dewi Sant

UNIVERSITY OF WALES

Trinity Saint David

TOPIC:

**RESEARCH REPORT ON THE IMPACT OF VIRTUAL LEARNING ENVIRONMENT (VLE)
– MOODLE ON STUDENTS' LEARNING EXPERIENCE AT THE UNIVERSITY OF WALES
TRINITY SAINT DAVID LONDON CAMPUS**

Module Name: Digital Skills and Research Methods (DSR)

Module Code: BMSW4003

Student Number: 2129921

Student Name: Mariana Dzharova

Lecture Name: Koushik Modak

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Abstract:

The research report examines the impact of VLE on students' learning experience via secondary and primary research methods. The research features secondary research that forms the foundation of the research project and it is also used to inform an empirical primary study. The primary research is in the form of a questionnaire that assesses the impact of Moodle on students in UWTSDLC. At the end, the report also present recommendations that the university can use to enhance the student experience even further.

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Introduction

The research report considers the impact of VLE - Moodle on students' learning experience in UWTSDLC. VLE is an online software that students can use in order to gain access to different online resources such as student support, online library and access to other learning resources. The impact of VLE is analysed using a variety of different research methods to ensure that the research is valid and reliable.

The research features secondary research that collects qualitative information. The information is collected using online sources because they are quick and easy to access. The data collected via the secondary research is used to inform an empirical primary study. The primary research collects quantitative data via a short questionnaire that has been completed by 30 students. The results are presented in the report using pie charts. At the end, the report concludes on the findings and presents recommendations that the university can use to improve its VLE in order to enhance the student experience even further.

Rationale

The research is conducted for the purpose of helping the UWTSDLC to improve its online service in order to enhance the students' learning experience. As a result, the university is likely to attract more applicants for the next academic year. Enhancing the learning experience of the students will also help them to achieve better grades.

Research objectives:

- ✓ To identify and analyse the benefits of VLE.
- ✓ To assess the impact of UWTSDLC's VLE – Moodle on their students' learning experience.
- ✓ To summary, analyse the collected data from the secondary and primary research.
- ✓ To conclude on the impact of VLE on the students' learning experience and to present recommendations that the university can use to improve their online services in order to enhance the student experience even further.

What I am trying to achieve from this research report is to identify the benefits of VLE and to assess the impact of UWTSDLC's VLE. Also, I am trying to conclude the impact of VLE on the students learning experience and then I would like to present recommendations to the university that can use to improve their online services.

Literature Review

VLE was introduced in order to progress students from passive to active learners by promoting out-of-class critical thinking that use in-class acquired knowledge (Ryan and Poole, 2019). Therefore, VLE provides universities with additional learning resources that the students can use to gain new knowledge and to consolidate knowledge gained during lectures and in-class activities.

The benefits of VLE were made evident during the Covid-19 pandemic as all students were required to continue their studies online. During times of national lockdowns, VLEs were used as prime methods of delivering lectures and as a prime method of doing in-class activities. This allowed universities to experience the benefits of VLEs. Research has shown that well synchronised VLEs are essential for student engagement with technology, peers and educators (Ryan and Poole, 2019). VLEs offer a unique opportunity to engage with technologies in a meaningful way and to be more engaged with study materials.

The usage of VLE has also helped to increase the effectiveness of in-class and after-class activities as the VLE has eased peer-to-peer learning and has allowed for more effective teacher involvement (Caprara and Caprara, 2021). For example, Zoom online classes allow the educators to split the student in groups and to visit each group in order to assess their progress and to provide help if it is needed.

VLEs can be opened and used both on computers and on smart gadgets such as smart phones and tablets. Therefore, modern technologies have provided both students and teachers with an array of tools and paths to a more effective learning and teaching process (Herrera Mosquera, 2017).

Despite the multiple benefits that a VLE software can provide to both students and teachers, research has found that there is still reluctance and fear from some students towards educational technologies. Perhaps, this is because VLE is still a relatively new and out-of-the ordinary concept that many are still unable or unwilling to accept. When asked, many students said that they prefer classroom-based teaching versus computer-based learning (Herrera Mosquera, 2017).

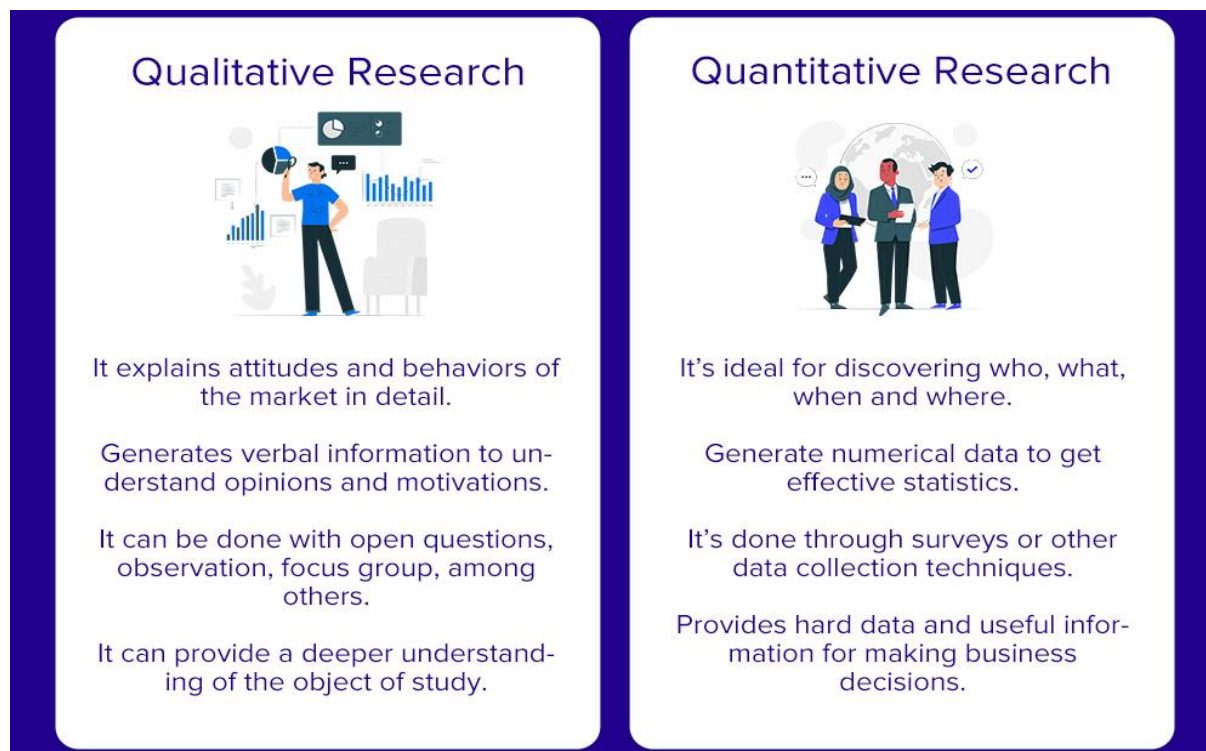
Overall, the literature review validates the findings of the research because the research results also show that VLE – Moodle has a positive impact on the learning experience of students in UWTSDLC. Details are discussed later in the report.

Research Methodology

- **Qualitative and Quantitative Research**

Qualitative research is a research method that collects data using words and meanings (Streefkerk, 2019). Qualitative research is usually conducted when the researcher wants to understand concepts, thoughts or experiences. The main advantage of this research method is that it allows the researcher to gain an in-depth understanding about the research topic. However, the main disadvantage of this research method is that the information is harder to collect, to summarise and to analyse. This research report collects qualitative data via online secondary research and via open-ended questions in the questionnaire that is used to conduct primary research.

On the other hand, quantitative research is a research method that collects numerical data that can be expressed in graphs or charts (Streefkerk, 2019). Quantitative data is usually used to test or to confirm theory as it enables the researcher to established generalised facts about the topic. The advantage of this research method is that is easier to summary and to analyse. However, it can be descriptive thus, it might be insufficient to make a detailed analysis and to reach valid and reliable conclusions. In this research report the quantitative data is collected via close-ended questions in the questionnaire.



- **Secondary Research**

Secondary research is a research method that collects data from previously conducted studies (McCrocklin, 2018). Secondary research is commonly used to form the basis of research projects and to inform and empirical primary study. This way, the researcher would decrease the risk of producing redundant primary research. Secondary research is a suitable research method for research projects that have limited resources and need to be completed within a short period of time.

This report features secondary research that collects data from online sources. In 2022, almost all sources are available in an online format. Therefore, this research method will allow the researcher to collect information quickly and efficiently.

- **Primary Research**

Primary research is a research method used to fulfil gaps in the information that the researcher was unable to gather during the secondary research (McCrocklin, 2018). It uses a research method that collects raw data via methods such as surveys, interviews, focus groups and questionnaires. The advantage of this research method is that it collects up-to-date information. However, the main disadvantage is that it is very time-consuming.

This research method collects primary data via a questionnaire that consists of 6 short questions.

	PRIMARY RESEARCH	SECONDARY RESEARCH
ORIGINAL DATA WAS COLLECTED...	By YOU (or someone you hire)	By SOMEONE ELSE
EXAMPLES	Surveys Focus Groups Interviews Observations Experiments	N/A – The act of looking for existing data IS secondary research
QUALITATIVE OR QUANTITATIVE?	Can be either	Can be either
KEY BENEFITS	Specific to your needs & you control the quality	Usually cheap and quick
KEY DISADVANTAGES	Usually costs more and takes longer	Data can be too old and/or not specific enough for your needs

- **Sample Size and Sampling Method**

The sample size used in this research project is of 30 participants. The participants have been selected using the probability sampling method. Probability sampling is when all people within the target audience have equal chances of being selected to participate in the research. This helps to decrease the risk of producing a biased and unreliable research results. The participants have been selected completely randomly.

- **Research Ethics**

Research ethics are moral standards that researcher must consider in order to respect the human rights, dignity and autonomy of the human participants in the research (Resnik, 2020). To ensure that the research is conducted ethically, the researcher has ensured that each participant has provided informed consent and that they have been made aware of their right to withdraw consent at any point. Furthermore, the participants have also been made aware that the questionnaire is anonymous in order to protect them from any harm by participating in the research.

Secondary Research Findings

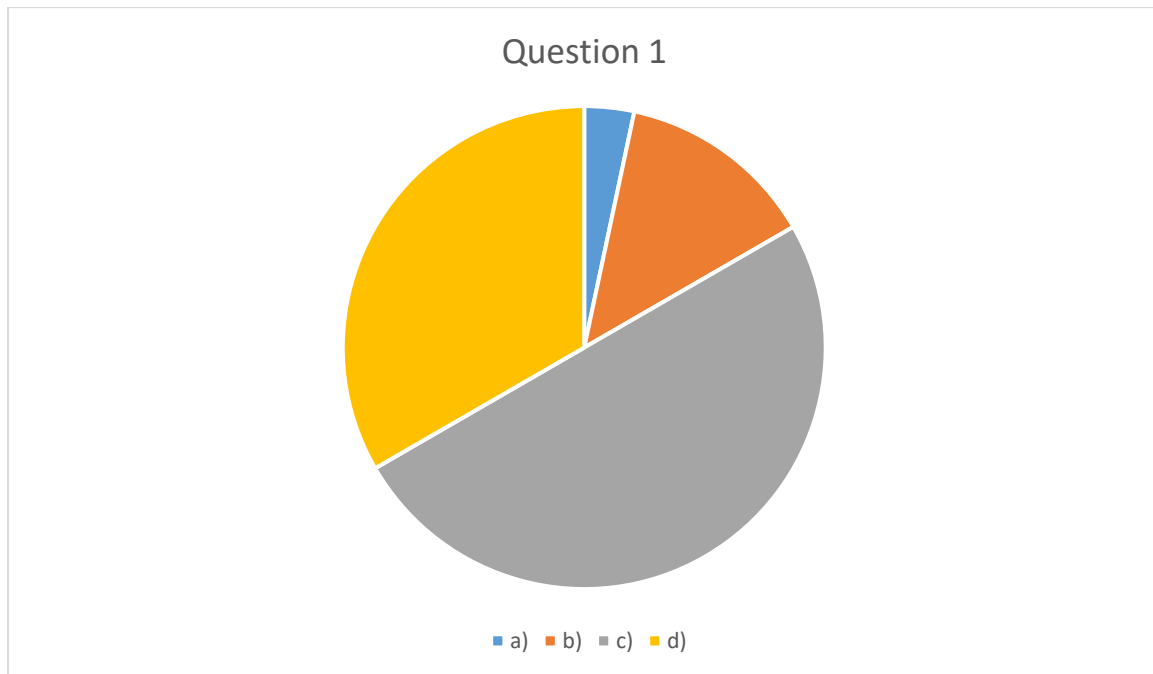
VLEs were designed in order to provide students with access to additional learning resources. This means that VLEs were designed to enhance students' learning experience. Some of the benefits of VLEs include a free access to online resources, improved peer-to-peer communication, improved communication with educators and a reduced workload for the teachers (Cook, 2022).

VLE is also very beneficial for students because it is a versatile online platform that can be used to push information in and out. The platform has been designed for people and provides great opportunity for students to participate in classroom debate, to plan content and to revisit information that was thought during in-class sessions (Walleit, 2021).

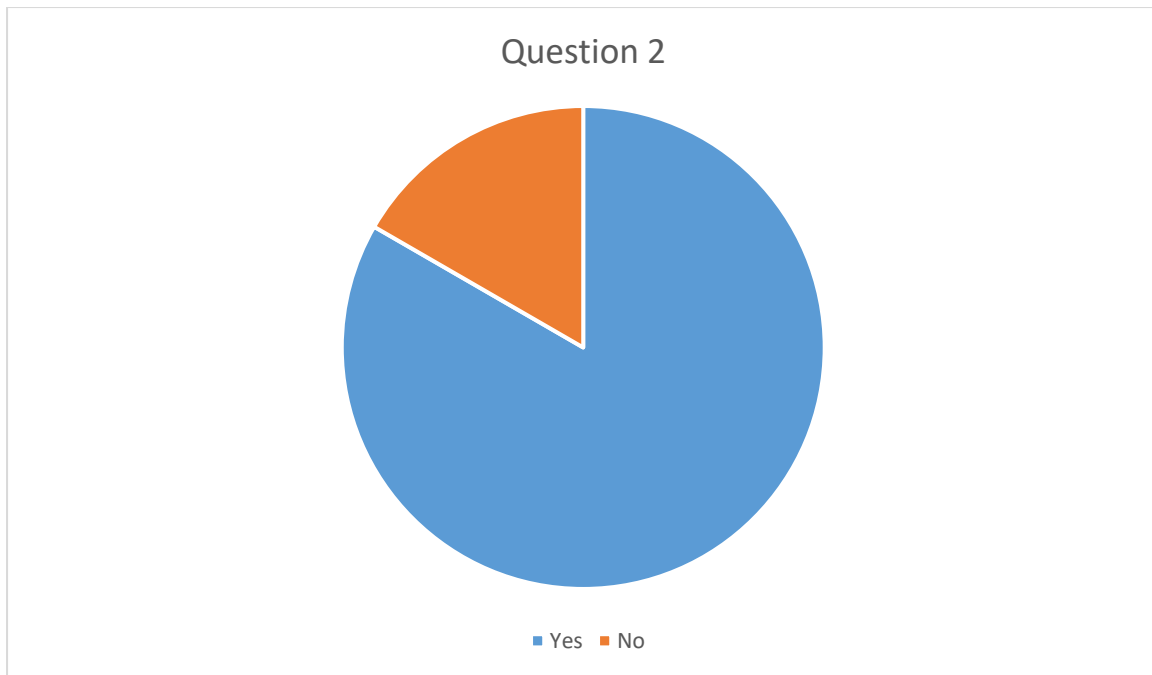
VLE also enhances the student experience because it supports distance learning. In 2022, the threat of Covid-19 is still very real, and many people continue to safeguard themselves as well as their family members. Therefore, having the opportunity to study from home provides the university with a unique selling point and satisfies the expectations of the students. Another benefit of VLEs is that it enables teachers to track the progress of their students (Walleit, 2021). This is important and helps to enhance the students' learning experience

because by holding them more accountable for their progress, the students are likely to engage more with their studies.

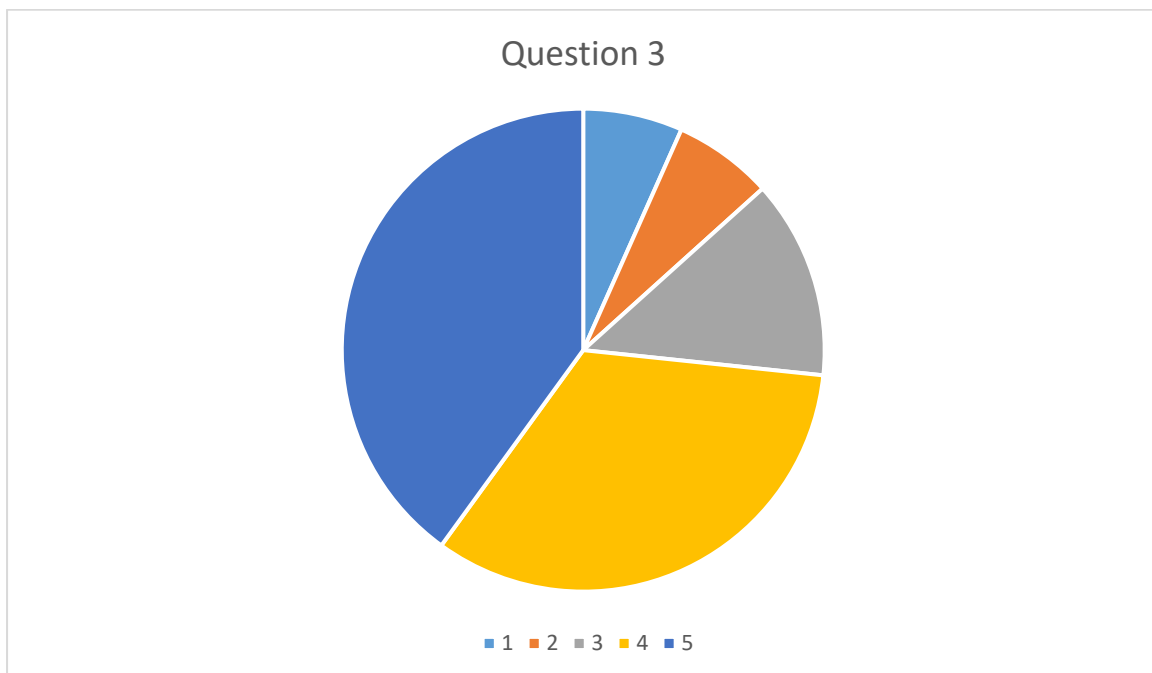
Primary Research Findings



The majority of the participants use VLE – Moodle more than 6 times a week. This is an indicator that the online platform has useful tools and enhances the learners' study experience because if it did not, the students would not use it that often. Only 1 person has said that he never uses Moodle and only 4 use Moodle less than 6 times a week.

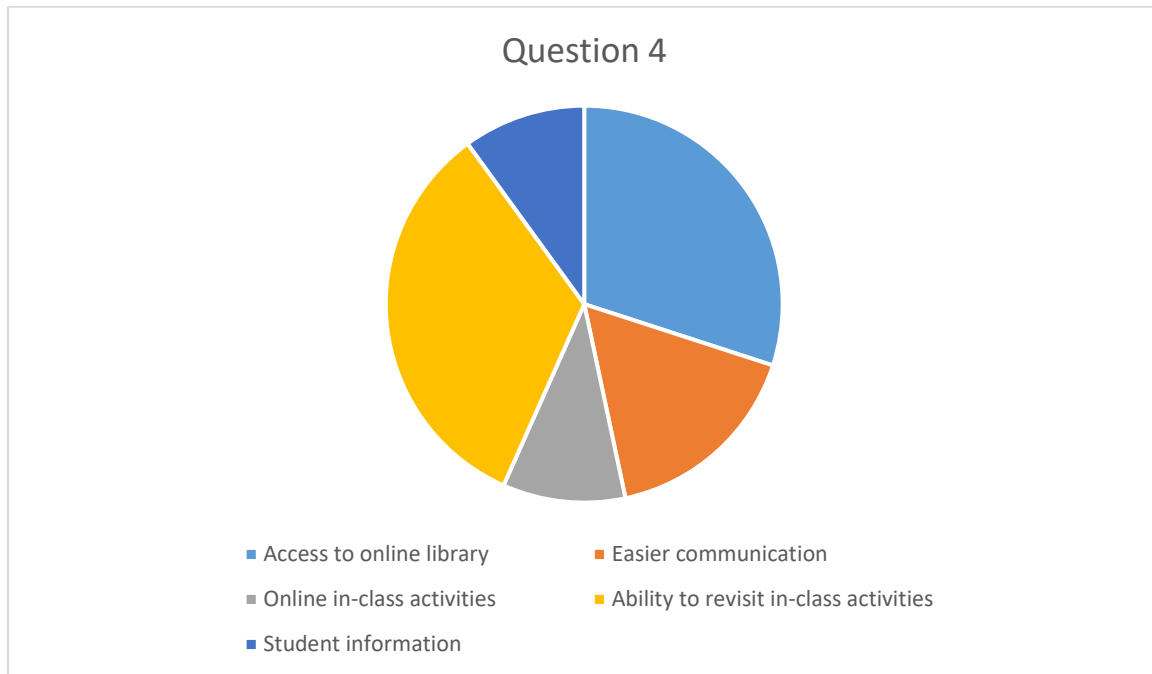


25 out of 30 participants find the VLE platform easy to use. Making the platform easy to navigate has enhanced and supported the learners through their learning experience because it has enabled them to access all or the majority of the online services that are available on the platform. The answers to this question also indicate that VLE – Moodle has a positive impact on learners' experience.

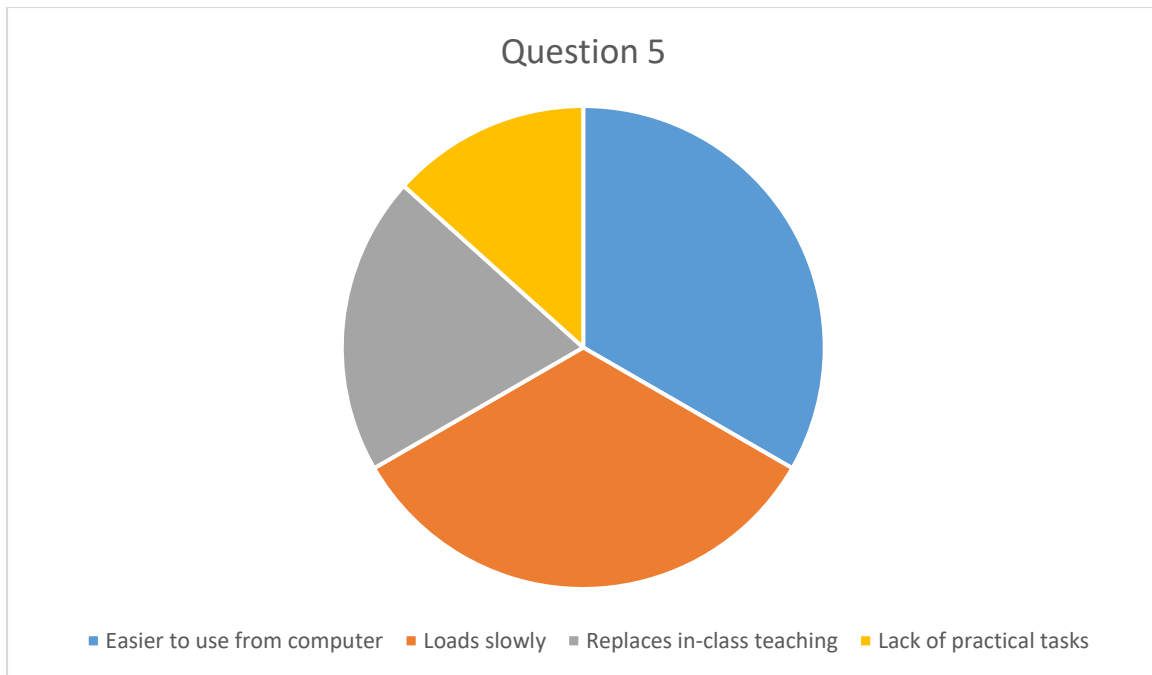


22 out of 30 participants have rated Moodle with "4" or "5", which means that the majority find the online platform to be very useful. 2 people have rated it "1", 2 have rated it "2" and 4 have

rated it with “3”. This shows that VLE enhances the learners’ experience but there is a room for improvement.

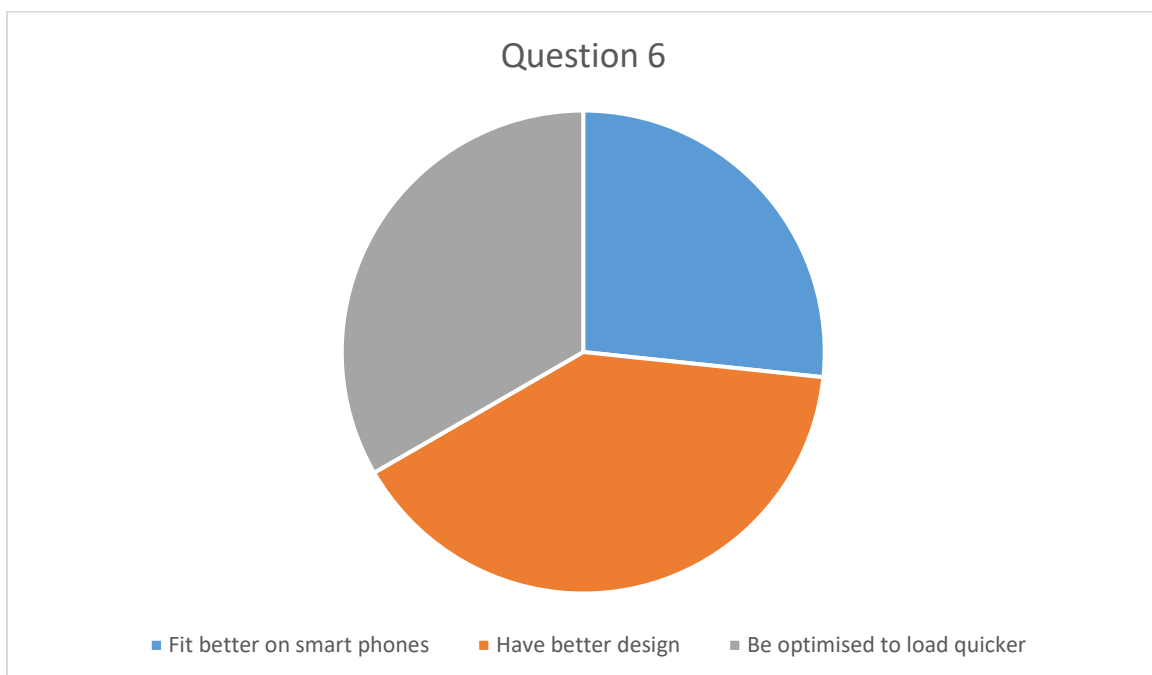


The benefits that were listed by the participants include access to online library, online in-class activities that can be accessed from any location, access to student information such as university policies, easier communication with peers and with educators and the ability to revisit in-class activities. Similar benefits were discussed during the literature review and during the summary of the data collected from the secondary research.



The main disadvantages of VLE that were listed by the participants are:

- It is easier to use it from a computer because the platform is not well displayed on smaller smart gadgets such as smart phones.
- It loads slowly.
- It is used to replace in-class teaching, which some students still prefer.
- Virtual learning does not support practical learning. For example, medical students would not be able to practice skills that they will need on the medical field.



The recommendations that the participants have listed include:

- The design of the VLE must be improved in order to fit better on smart phones.
- The design of the platform must be improved in order to be easier for users to find their online service.
- The VLE needs to be optimised more regularly in order to load quicker. Websites that load slowly can be annoying and can lead to a worse student experience.

Conclusion and Recommendations

To conclude, VLE - Moodle on students in UWTSDLC is a useful online tool that enhances students' learning experience because it provides them with access to more learning resources, it enables easier communication between peers and between peers and educators. It also increases the engagement rates of students and helps them to achieve higher grades because they can revisit materials that were discussed during in-class activities but also because the educators can track the performance of the students and persuade them to work harder on their studies.

Although it was not mentioned by the participants, by my opinion that the lack of face-to-face is another disadvantage of VLE. VLE encourages virtual and distance learning, which results in less social contacts. Socialising is an important aspect of university life that is especially important for students who want to progress a career in the business field.

However, Moodle - the online platform is not perfect and there are some areas that need to be improved in order to enhance the students' learning experience. According to the primary research, the UWTSDL must adopt the following recommendations:

1. It must optimise the platform in order to make it more compatible with smaller smart gadgets such as tablets and smart phones.
2. The university must improve the design of the online platform in order to make it easier for the users to navigate.
3. The university needs to optimise the platform more regularly in order to ensure that it has the latest updates and that it loads quickly.

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Appendix A

Student Name: _Mariana Dzharova

Student ID: 2129921

Module Name: Digital Skills and Research Methods

Group: one

Question 1: How many times do you use MOODLE per week?

- a) Never
- b) 1-5 times a week
- c) 6-10 times a week
- d) More than 10 times a week.

Question 2: Do you find the VLE platform easy to use?

- a) Yes
- b) No

Question 3: Please rate MOODLE from 1 being not useful at all to 5 being very useful.

1	2	3	4	5
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Question 4: Please write one benefit that you get from VLE:

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Question 5: Please write one disadvantage of VLE:

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Question 6: Please write one recommendation how VLE can be improved:

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Appendix B

Question 1:	How many times do you use MOODLE per week?	
	a) never	1
	b) 1-5 times a week	4
	c) 6-10 times a week	15
	d) more than 10 times a week	10
Question 2:	Do you find the VLE platform to use?	
	a) YES	25
	b) NO	5
Question 3:	Please rate MOODLE from 1 being not useful at all to 5 being very useful.	
	1	2
	2	2
	3	4
	4	10
	5	12
Question 4:	Please write one benefit that you get from VLE.	
	Student information	3
	Online in-class activities	3
	Ability to revisit in-class	10
	Easier communication	5
	Access to online library	9
Question 5:	Please write one disadvantage of VLE.	
	Lack of practical tasks	4
	Load slowly	10
	Replaces in-class	6
	Easier to use from...	10
Question 6:	Please write one recommendation how VLE can be improved.	
	Be optimised to load quicker	10
	Have better design	12
	Fit better on smart phones	8