

BMSW4003 - Digital Skills and Research Methods

DSR Assessment 2 Individual Report

Student name: Saleha Begum Shirin

Student ID: 2029506

Lecturer's name: Amitave Banik

Word count: 2190

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Abstract

Moodle has played an essential role in delivering education in the last few years. This research report will analyse and evaluate the impact of VLE (Moodle) on students at University of Wales Trinity Saint David. Students were given a questionnaire investigating the impact of using Moodle on learning, which 10 students responded to. The results showed that the majority of students had a positive experience with Moodle and reported that it had a positive impact on students' education. The findings will be essential to teachers in improving education and to help foresee how Moodle can be implemented into learning.

Keywords

Virtual Learning Environment, Moodle, university students (UWTSD)

Introduction

Moodle is an online platform designed to enhance rather than replace classrooms. It is designed to enhance the classroom by providing opportunity for remote conversations between staff and students as well as providing an eco-friendly solution to sharing resources and work with teachers so they can be stored and accessed at any time. Teachers can also share resources such as worksheets, PowerPoints and even videos and articles. Once again, Moodle is used to provide an easier way to connect and share resources and create a motivating, self-learning experience for students.

Rationale:

Moodle is software that is used at the University of Wales Trinity Saint David, London campus (UWTSD). Its functions allow teachers and course coordinators to deliver lessons in an interactive and to use way, as well as making communication between classroom and teachers more accessible. Students and teachers need to make sure that there is an online service available during the course to help aid learning. Students will need to have the right tools to take advantage of Moodle. As stated in the article (Study portals, 2021) 'moodle was devised by Martin Dougiamas and since its inception, its primary agenda has been to contribute suitably to the system of e-learning and facilitate online education and attainment of an online degree.' As a student myself, I can see the advantage of using Moodle to improve the communication process between students and the teachers and make it more efficient. Attendance is also compulsory at UWTSD, for all the courses. Moodle should not replace face-to-face learning, it should be used to aid learning outside of class. It also provides online classes and additional resources for students who are not able to make it to the campus. It has been exceptionally useful during COVID-19 as it has aided students to continue learning seamlessly during the transition to remote learning.

Literature review Moodle use

This literature review discusses the impact on the students using Moodle, and the background of Moodle to support learning. It starts with historical background followed by positive and negative impacts of Moodle being used by students. It will be beneficial in my own investigation into the impact of Moodle on the learning of students at the UWTSD. I will use Martin Dougiamas' theory to support my investigation. Then I will collect primary data through the survey (questions) and secondary data through research and use it to provide conclusions and consider how we are going to manage the Ethical Consideration and Data Protection Act for this work.

Historical background on the use and development of Moodle

Moodle 'was created by Martin Dougiamas while working on a postgraduate degree at the Curtin University of Technology in Australia. Moodle has a diverse user community with over 1,077,969 users, speaking 86 languages in 212 countries around the world' (Al-Ajlan, et al, 2008). Dougiamas registered the word 'Moodle' as a trademark of Moodle Pty Ltd.

The first contributed Module workshop was released by Moodle.org later Moodle.com. Moodle also has the biggest community of developers, alongside the teaching industry.

As we see the history of Moodle from the late 1970s, in August 2002 Moodle 1.0 was released. Over the next few years, Moodle grew quickly. As it continued its journey in May 2020 Moodle launched the Moodle Educator Certification program which certifies teachers who are experienced in using Moodle and also adapting to the Moodle resources.

General positive impacts of Moodle

The several advantages of Moodle, including providing a space for easy sharing of resources. It is great for providing administrative help by assisting in lesson organisation, managing assessments and monitoring student progress. A study (Stricker & Weibel, 2011) examining the blended learning approach using VLEs like Moodle in addition to face-to-face lectures in an undergraduate course showed clearly that out of 80 users and 82 non-users, the students that used VLE to aid their learning had performed significantly better in their final exams. This shows that Moodle can help improve students' grades by allowing them to better prepare for the lectures and revise more easily. Another note to take from the study (Stricker & Weibel, 2011) is that the students who improved their grades using VLE only used it for two or more hours a week. This shows that even with small usage of Moodle, there is a massive positive impact on students' education. Furthermore, the study (Stricker & Weibel, 2011) categorised users into 'heavy users' and 'light users'. It was found that the students that used VLE for longer had performed better in their final exams. This is important

for the future of teaching as it goes to show that if educators spend more time implementing Moodle into their teaching plan, students will also be able to utilise and improve their education significantly.

Additionally, the study (Barker & Gossman, 2013) on learning impact of a VLE provides further evidence in favour of the use of Moodle, on the education of students. The report was based on a survey of 248 college students on their thoughts of the use of Moodle in their education. The study (Barker & Gossman, 2013) provides significant evidence that the use of Moodle 'produces improvement in learning and motivation' as reported by the majority of the students. Furthermore, 53% of students reported that Moodle did indeed have a positive impact on their learning. 43.1% of students reported that they learn more with Moodle than without it. This goes to show that students themselves are experiencing a positive impact on their education from the use of Moodle and we should continue to encourage the implementation of Moodle into the education system.

Moodle also comes with many useful features all accessible in one place

- Timetable
- eMail
- library
- onedrive
- microsoft office
- Hwb chat
- Student union
- Digital ID
- TEAMS
- FORM
- Academic and financial support
- Health and wellbeing
- Attendance

General negative impacts of Moodle:

It is important to discuss and analyse the negative implications of Moodle on students as well. To begin with, a study on the use of VLE in education in China (Raj & Schepers, 2008) shows that it is not enough to introduce these systems into education. The mind-set and acceptance of using VLE in education is just as important. The study (Raj & Schepers, 2008) showed that 'perceived usefulness has a direct effect on VLE use.' This means that if we want the use of Moodle to have a positive impact on students, we need to make sure that users have the right mind-set to using VLE and are willing to utilise them to aid their learning without the fear of technology. This is important in understanding what steps we must take to properly implement VLE into our education to avoid negative impacts such as 'computer anxiety.' We have to make sure users are confident using Moodle and are willing to take advantage of it, otherwise it will cause stress and fear of technology.

Methodology

I have developed a questionnaire to collect data from 10 students from the UWTSD. There were 13 questions, question types included – multiple-choice, likert scale, open-ended and close questions. This provided qualitative and quantitative data to give us various forms of data to analyse. ‘Data collection is the process by which the researcher collects the information needed to answer the research question(s) or problem’ (Nalzar,2012). I also collected secondary data to support my findings from the questionnaire. Secondary data is the data that has already been collected by other researchers in the past.

Results

Students who filled up the questionnaire are studying Academic and Employability skills at the UWTSD.

What age did you first use Moodle?

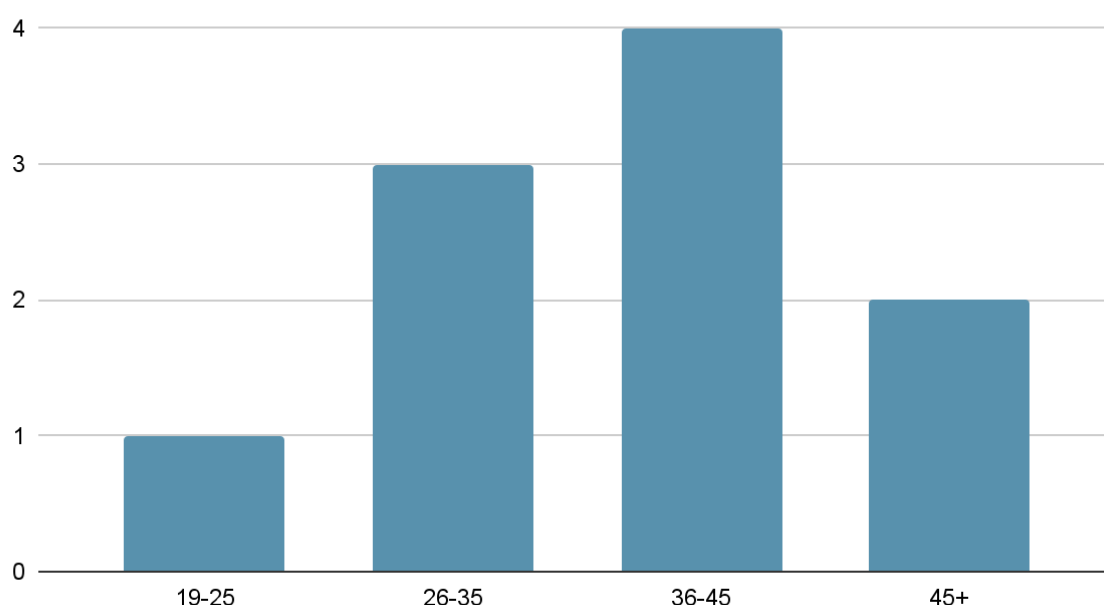


Fig 1 (Saleha Shirin, 2022)

Out of 10 students, 40% reported that they used Moodle for the first time before the age of 36-45. The majority, being 60% of students, used Moodle for the first time after age 36. This helps highlight that the introduction of Moodle into education is fairly recent and is still having a positive impact on students of an older age. This helps encourage the implementation of VLE into the younger generation's education as well as it will be more beneficial if they start using it from a younger age.

How many people have heard of VLE/Moodle

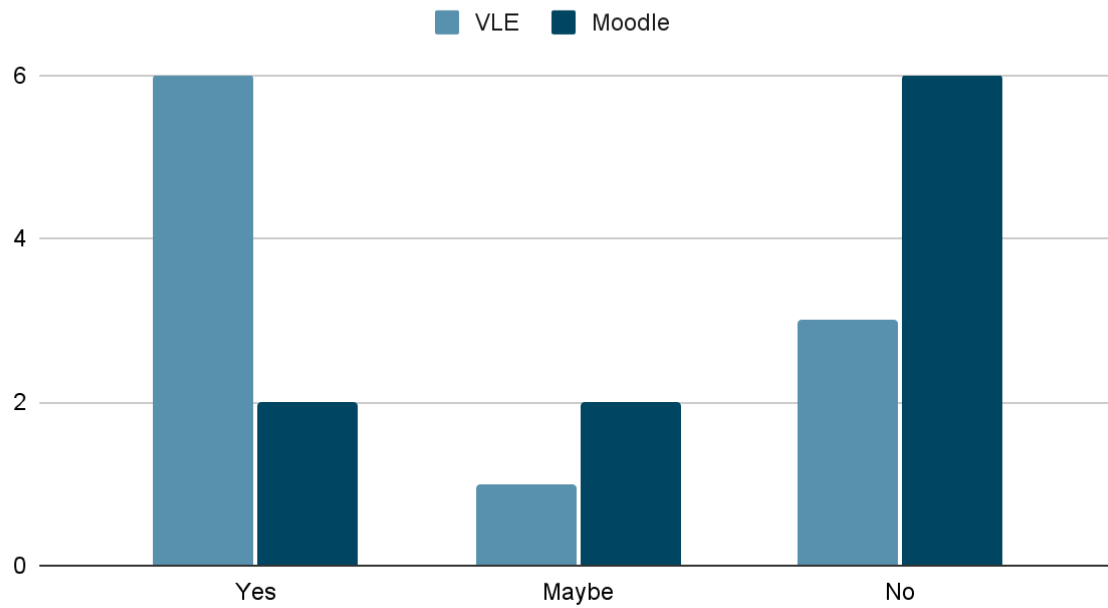


Fig 2 (Saleha Shirin, 2022)

Participants of the questionnaire were asked two questions on whether they had heard of virtual learning environments and a follow up question on whether they had heard of Moodle before. By comparing the results of both questions, we can conclude that 60% of students were familiar with VLE, however only an underwhelming 20% had heard of Moodle before.

Number of people who know how to use Moodle

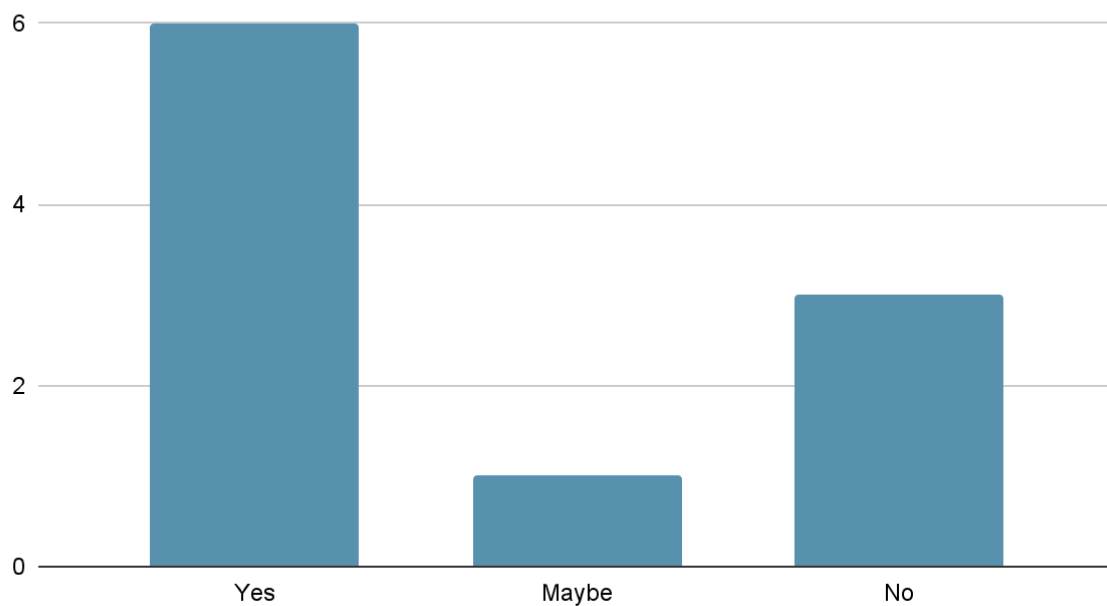


Fig 3 (Saleha Shirin, 2022)

During the questionnaire, when questioned on whether the students knew how to use Moodle, 60% of the students admitted that they knew how to use it, after joining the course. Fig 3 shows that even though the course and the modules are designed to integrate Moodle, not all students can use or access the VLE due to lack of access or understanding of the platform.

I would recommend Moodle to a friend

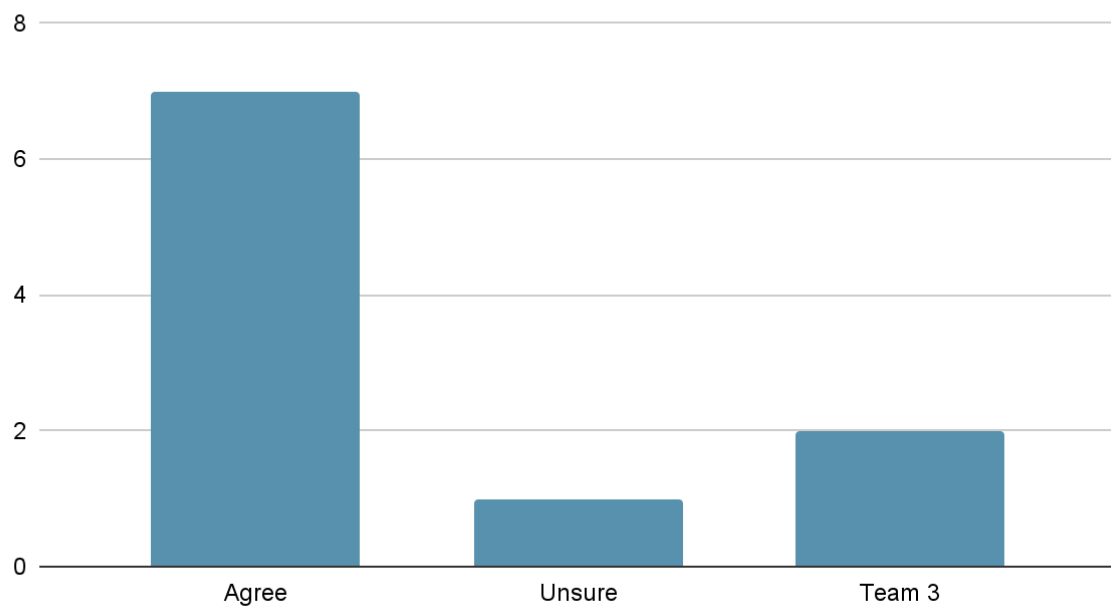
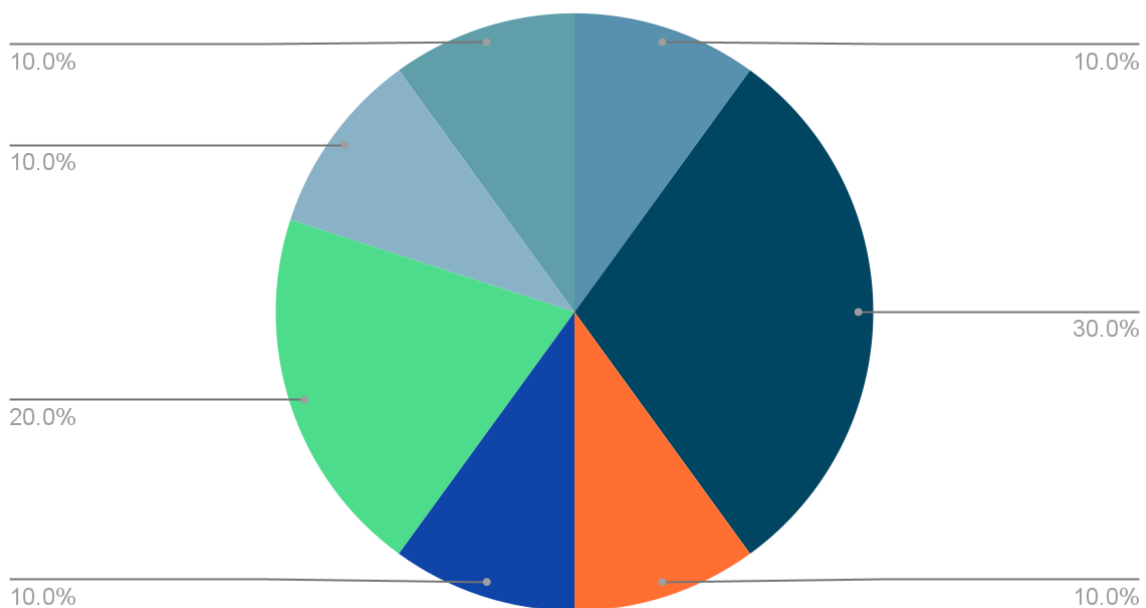


Fig 4 (Saleha Shirin, 2022)

When asked if students would recommend Moodle to a friend, 70% of students responded that they would. The significantly positive results suggest to us there is a positive impact of Moodle on students as they want to encourage more people to use Moodle.

How was your experience using Moodle (1 = Good, 10 = Bad)?



Is Moodle user friendly?

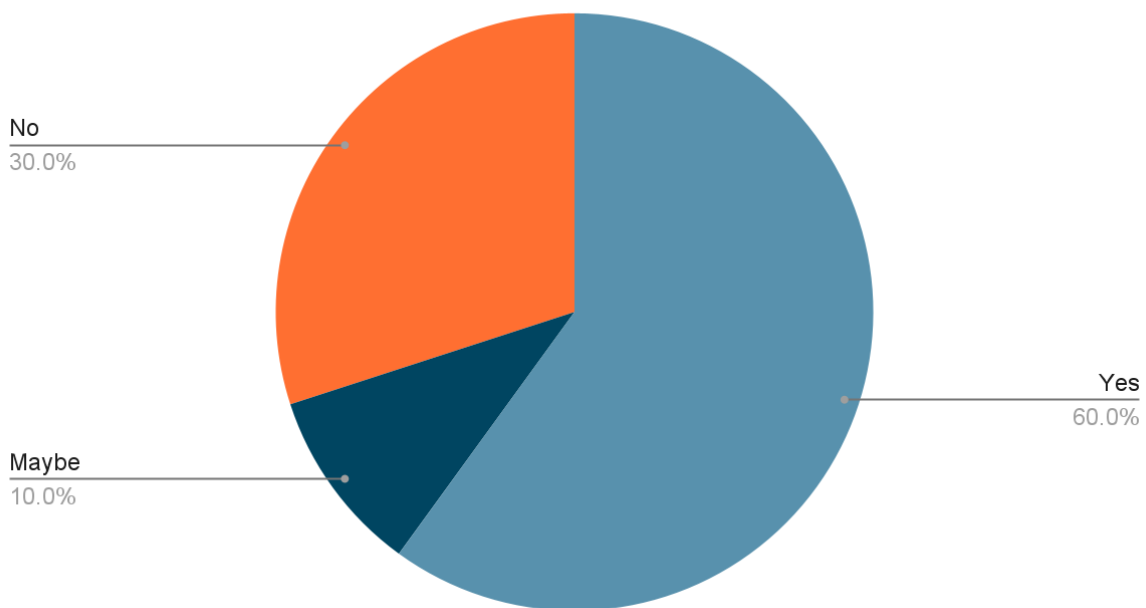


Fig 5, 6 (Saleha Shirin, 2022)

A likert scale was used to rate the experience students had using Moodle from which, the majority of 30% selected 2 (positive), indicating they had a positive experience using Moodle. In the follow-up question, 60% of students responded 'yes' to if Moodle is user friendly. This suggests that there may be a correlation between having a user-friendly interface and students' experience using Moodle. In this case, the easy-to-use platform resulted in a positive experience for students.

What Moodle features do you use?

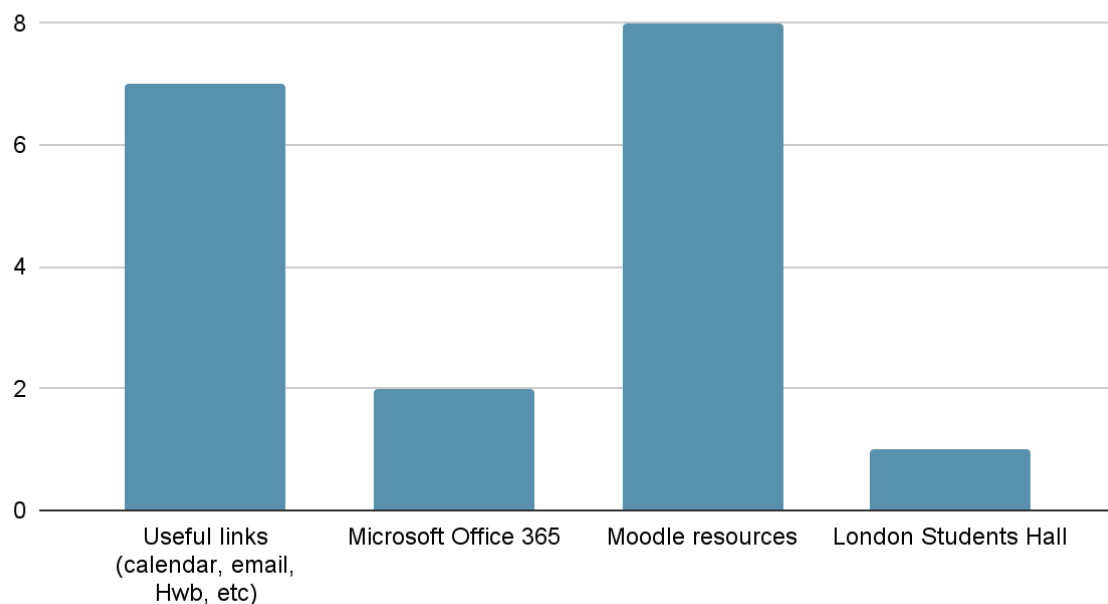


Fig 7 (Saleha Shirin, 2022)

Open-ended questioning was used to investigate the purpose for which Moodle is used most. 70% of the students reported that they use the platform for downloading course resources, whilst 20% state that they only use it to submit their assignments. Usage of other features such as the chat space was mentioned by only 10% of students. From this, it can be concluded that Moodle is used primarily for practical purposes rather than for socialising. This is further supported by the results from the follow-up multi-choice question on which functions students use most on Moodle. Again, 80% of students answered 'Moodle resources' compared to only 20% selected 'Useful links (calendar, email, Hwb, etc)'.

Ethical Consideration and Data Protection Act

In accordance with implementing ethical guidelines issued by founders and the University of Wales Trinity Saint David, London campus on the learning experience of the students cover how you can create and store data. In accordance with the Data Protection Act 2018 governs the processing of personal data. The questionnaire was done anonymously in order to protect participants' confidentiality. They were not asked to share their name as it has no relevance to the report. They were, however, asked to provide their gender in relation to a question investigating how many people used Moodle. This was necessary to determine if there were more female or male users. Furthermore, in line with ethical considerations, students were asked if they wanted to participate and were aware that they could withdraw from the project at any time and had no obligation to complete the questionnaire. The students were also debriefed and made aware of the objective behind the report and that it

was an investigation into the impact of Moodle on students at University of Wales Trinity Saint David, London campus on the learning experience of the students.

Conclusion

After examining all the information collected from my questionnaire and the studies on Moodle, it can be concluded that the advantages and positive impact of Moodle on students outweigh the negative impacts. However, the negative impacts are just as important as they can have detrimental effects on student education therefore, we have to make sure VLEs are being implemented and used properly in order to avoid the negative outcomes. One way to combat this is to make sure proper training is provided to teachers and educators so they are confident using Moodle and are able to use it to the best of their abilities so that students are also confident using it to aid their learning. This means the quality of teaching in and out of class can always be maintained at a high standard, making life easier for teachers and helping students improve their grades drastically.

Appendix

In-Class exercise: Questionnaire Design

Student name: Saleha Begum Shirin Student ID: 2029506

Module name: Digital skills and Research Methods Term 2

Aim: This exercise is aimed to help you in your questionnaire design. Please note you need to use this questionnaire to conduct a survey which is also one of the important parts of your research report.

Question 1:

Have you used Moodle before?

Yes

Maybe

No

Question 2:

Do you know how to use Moodle?

Yes

Maybe

No

Question 3:

Have you heard of virtual learning?

Yes

Maybe

No

Question 4:

What did you use Moodle for (website, campus)?

Question 5:

Rate your experience using Moodle from 1 (very bad) to 5 (very good).

1 2 3 4 5 ____

Question 6:

I prefer online learning instead of in class.

Agree

Unsure

Disagree

Question 7:

How often do you use Moodle?

Never

Always

1 2 3 4 5 6 7 8 9 10

Question 8:

How was your experience using Moodle? (1-Good, 10-Bad)

1 2 3 4 5 6 7 8 9 10

Question 9:

I would recommend using Moodle to a friend.

Agree

Unsure

Disagree

Question 10:

Is Moodle user friendly in your opinion?

Yes

Maybe

No

Question 11:

Which functions do you use the most on Moodle?

- 1) Useful links (calendar, email, Hwb, etc.)
- 2) Using Microsoft office 365
- 3) Moodle resources
- 4) London Students Hall

Question 12:

What age were you when you first used Moodle?

19-15	26-35	36-45	45+
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Question 13:

What is your gender?

Male	Female
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