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Impact of Virtual Learning Environment – Moodle on students

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Abstract

This report will focus on the impact of virtual learning environment on the learning experience of the students from University of Wales Trinity Saint David London Campus.

To find insights and understanding of the topic, research was conducted. Both qualitative and quantitative data is considered, and combined research methodology was followed.

All the data collected will be reflected through graphs and charts. Graph analyzes will be conducted on the finding of the research and explanation and hypothesis will be outlined.

The conclusion of this report will be based on the findings of the research.

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Introduction

This report is based on the finding from the survey for students' learning experience by using Virtual Learning Environment (VLE) – “Moodle” at the University of Wales Trinity Saint David London Campus.

The survey consists of four close ended questions and two open ended question. The results of the questionnaire will be shown using Pie charts and Bar graphs. An analyze will be conducted on the collected data.

Using external sources, I will collect more data on the topic that will help me get better understanding about the learning experience of students using Moodle.

The conclusion of this report will be based on the data collected from the above-mentioned survey and research.

Research

The research that was conducted for this report is qualitative and quantitative. Those research methods were chosen because they are complimentary and can help me get a results that are both wide-reaching and deep.

Research objective

The objective for this research is to gather data and insights of the virtual learning experience of the students that are using Moodle at the University of Wales Trinity Saint David London Campus.

Review of Existing Literature

The virtual learning environment and students' experiences with it.

A virtual learning environment (VLE) is a collaborative online-based platform that offers students and lecturer digital solution to enhance learning experience. It aims to create interactive, active learning environment for its users.

“Virtual learning is designed to extend educational experiences. It does not try to replicate them. In virtual learning environments, students access resources and interact in ways they would not or could not in the physical classroom.” (Debra Meyer, October 8, 2020)¹

¹ Debra Meyer (October 8, 2020) Virtual Learning Is the Way Forward for Educators
<https://www.elmhurst.edu/blog/virtual-learning/> (Accessed on 1 September 2022)

“Treating digital learning like a “normal” classroom, where learners are expected to listen to long lectures, isn’t often the best way to conduct classes. Instead, you should try to include elements that promote interaction and activate learners, so that the people on the other end of the line won’t doze off after 20 minutes.” (Teemu Vaalasmaa, February 10, 2021)²

“Online education can lead to a sense of isolation, which can be detrimental to student success” (McInnerney & Roberts, 2004)³.

“Virtual learning seemed to significantly improve students' satisfaction/engagement and recall.” (Eimear Ryan and Claire Poole, April 5, 2019)⁴

Research methodology

The qualitative data collected will provide me data from which I can draw hypothesis and the quantitative research will get me the numbers that I can apply statistical analysis to in order to validate those hypotheses.

Qualitative research

“Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research.” (Pritha Bhandari, August 17, 2022)⁵

Quantitative research

“Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations.” (Pritha Bhandari, August 19, 2022)⁶

Population

The research population, also known as focus group, involves a small group of people with similar demographic characteristics. Those individuals’ reactions to specific researcher/evaluator-posed questions are analyzed in order to get better understanding and insights of their feelings or

² Teemu Vaalasmaa (10 February 2021) <https://claned.com/5-things-we-learned-about-online-learning-in-2020/> (Accessed on 1 September 2022)

³ McInnerney, J. M. , & Roberts, T. S. (2004). Online learning: Social interaction and the creation of a sense of community. Journal of Educational Technology & Society

⁴ Eimear Ryan and Claire Poole (April 5, 2019) <https://pubmed.ncbi.nlm.nih.gov/31229502/> (Accessed on 2 September 2022)

⁵ Pritha Bhandari (17 August 2022) What Is Qualitative Research? <https://www.scribbr.com/methodology/qualitative-research/> (Accessed on 30 August 2022)

⁶ Pritha Bhandari (19 August 2022) What Is Quantitative Research? <https://www.scribbr.com/methodology/quantitative-research/> (Accessed on 30 August 2022)

experiences regarding the studied matter. The population chosen for this report is the students from University of Wales Trinity Saint David London Campus.

Sample and Sample Size

Sample size is term used in marketing research that defines the number of participants included in the sample. The term is used for the group of individuals that were selected from the general population that can be considered as representatives of the real population for the specific research.

The survey will be carried on in the university and I have chosen to conduct a survey that is focused on 15 students, who will be my sample, with questions designed to reveal insights of their virtual learning experience with the platform Moodle.

Data collection process

“Data collection is a systematic process of gathering observations or measurements. Whether you are performing research for business, governmental or academic purposes, data collection allows you to gain first-hand knowledge and original insights into your research problem.” (Pritha Bhandari, June 5, 2022)⁷

I have designed six questions that are aiming to discover insights of the virtual learning experience of the students from University of Wales Trinity Saint David London Campus. Four of the questions are close ended with single choice answer and are designed to provoke a simple response from survey’s participants. The other two questions are open ended and are designed to provoke the respondents to freely express themselves in any way they choose. This will allow the students to effortlessly respond to the survey’s questions, thus I can easily collect the needed data. Therefore, the information gathered will help me gain insight of the opinion of the students enrolled in virtual learning in the campus.

Ethics in data collection

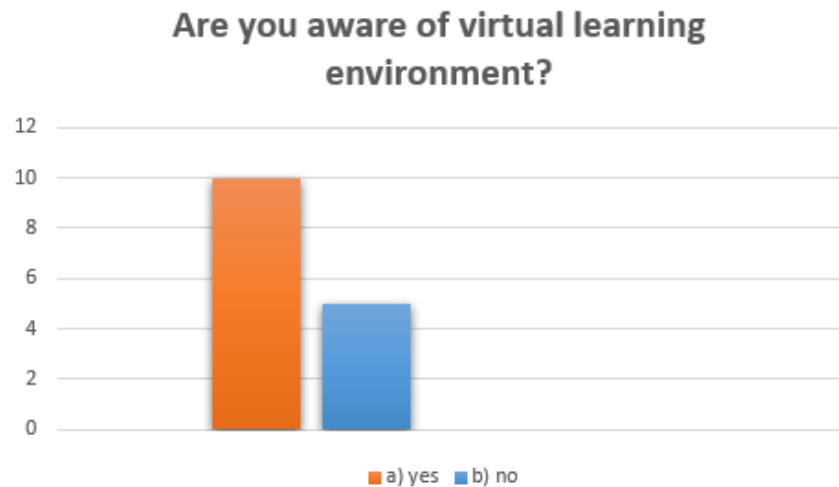
The participants were fully informed about the aims of the survey, and they gave consent to partake in it. The participant’s involvement was voluntary. Participants are free to withdraw from any active data collection or intervention from my side at any point. The information provided by the sample size is confidential and the findings from it will be anonymous.

⁷ Pritha Bhandari (17 August 2022) What Is Qualitative Research?
<https://www.scribbr.com/methodology/data-collection/> (Accessed on 31 August 2022)

Findings, Analysis and Discussion

Impact of Virtual Learning Environment questionnaire and results

Question 1		
Are you aware of virtual learning environment?	a) yes	b) no
	10	5

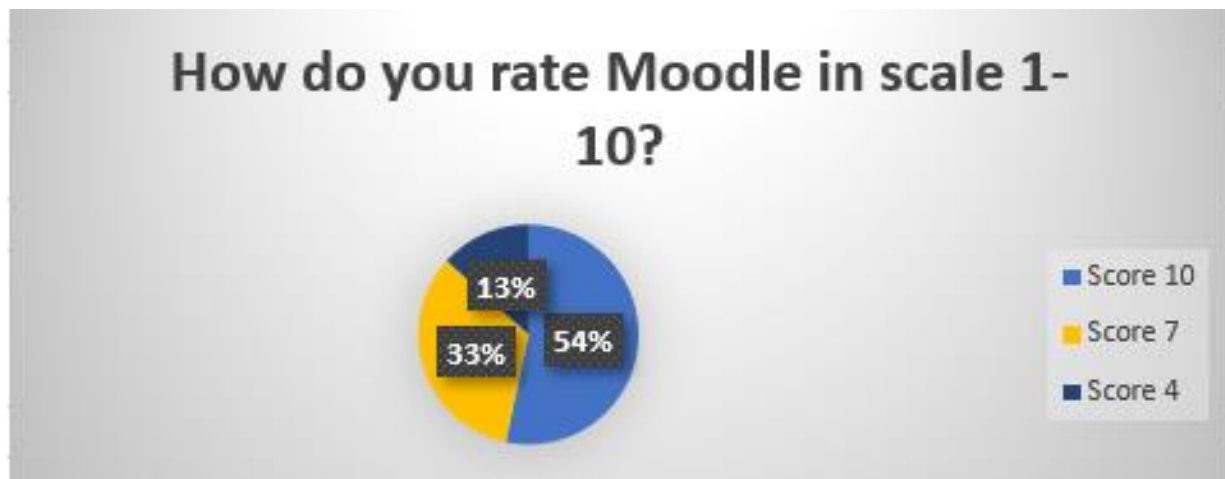
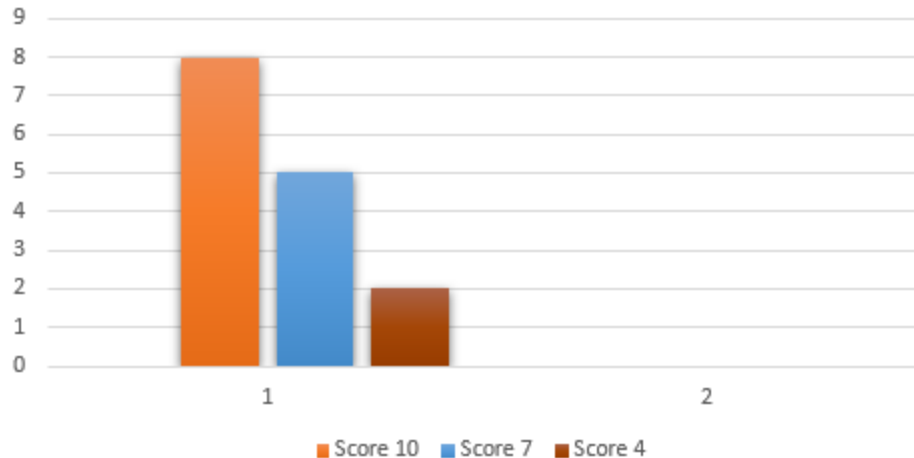


Q1. Graph Analysis: 67% (10 participants) of the participants has responded that they are aware of virtual learning environment. On other hand 33% (5 participants) has responded that they are not aware of it.

The results show that 1/3 of the students that took the survey are not familiar with the virtual learning environment. This negative response to the question could be due to the students not knowing what actually virtual learning environment means.

Question 2			
How do you rate Moodle in scale 1-10?	10	7	4
	8	5	2

How do you rate Moodle in scale 1-10?

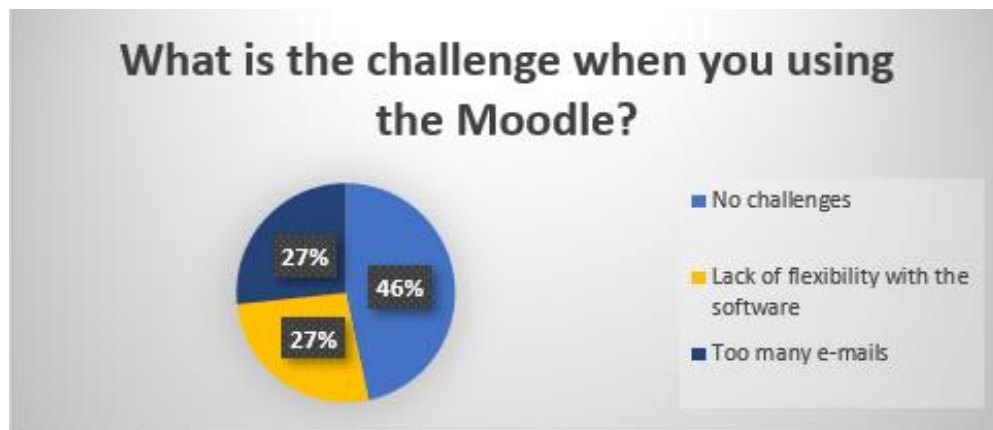
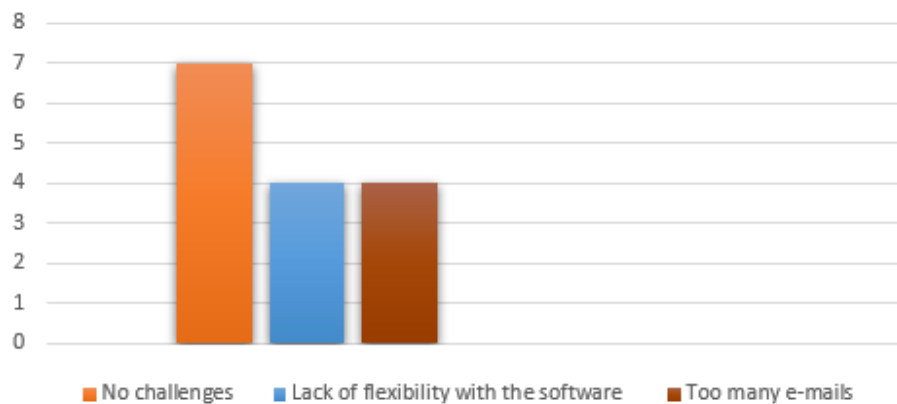


Q2). Graph Analysis: 54% (8 participants) has responded with score 10, 33% has responded with score 7 (5 participants) and 13% has responded with score 4 (participants).

This shows that more than the half of the students that participate in the survey are really happy of the learning experience with Moodle and the rest of them are pretty satisfied with it. Meaning that the satisfaction with the platform usage is relatively high.

Question 3			
What is the challenge when you using the Moodle?	No challenges	Lack of flexibility with the software	Too many e-mails
	7	4	4

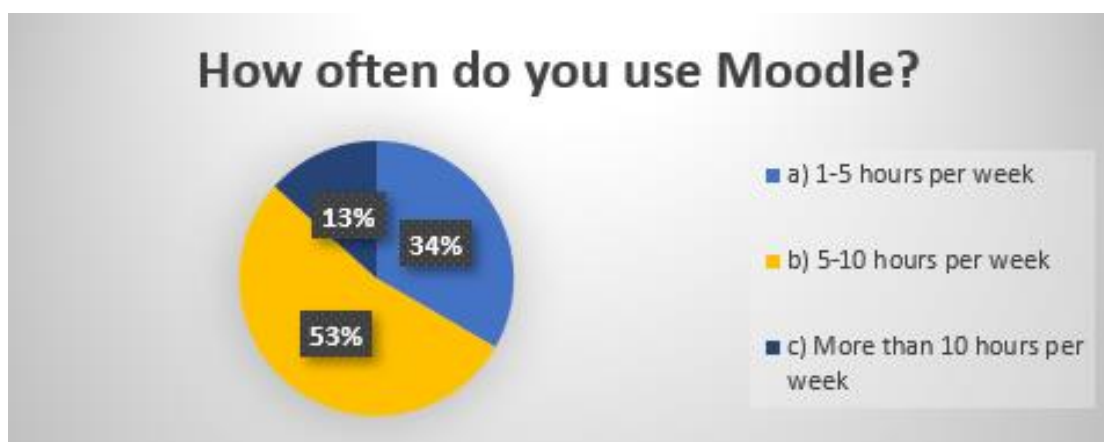
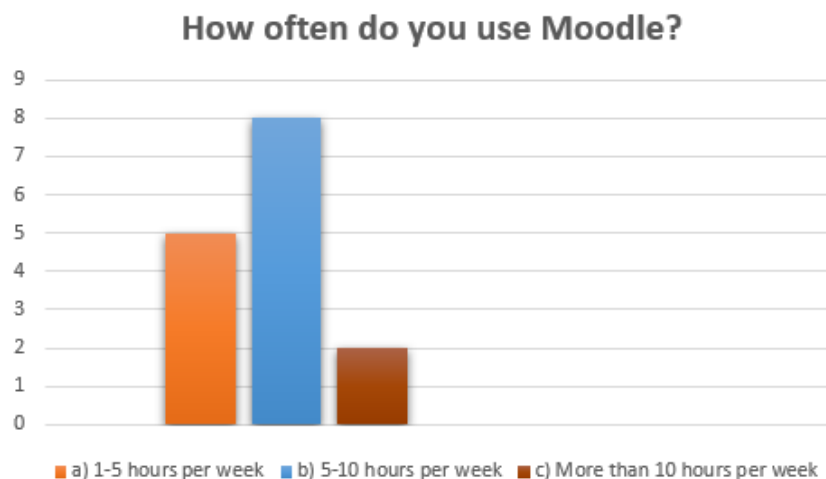
What is the challenge when you using the Moodle?



Q3). Graph Analysis: 46% (7 participants) answered that they do not face any challenges while using the Moodle platform, 27% (4 participants) answered that platform is lacking flexibility and the remaining 27% (4 participants) are unsatisfied about the spam like emails send from the platform.

This shows that around half of the students are comfortable to use the platform and does not face any challenges with it. The remaining participants are facing challenges with the User Interface and the lack of options to filter the spam like emails sent from the platform.

Question 4			
How often do you use Moodle?	a) 1-5 hours per week	b) 5-10 hours per week	c) More than 10 hours per week
	5	8	2



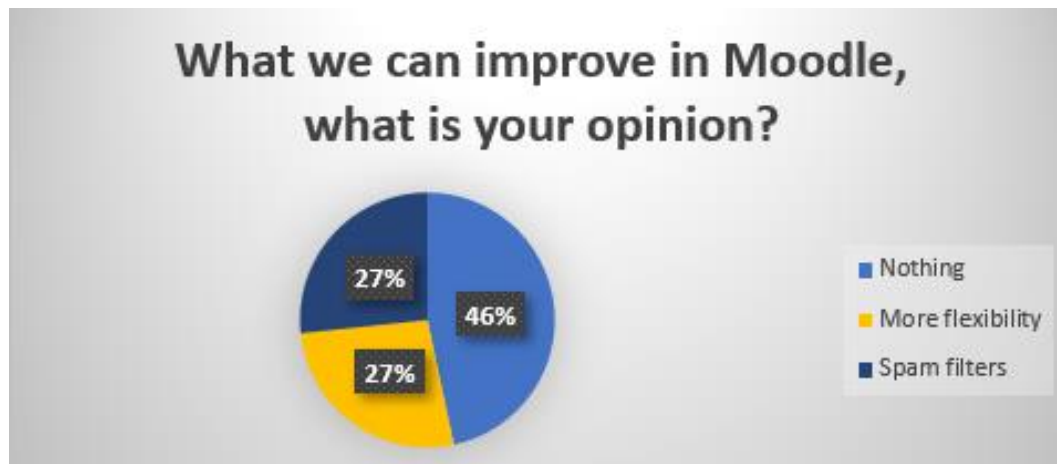
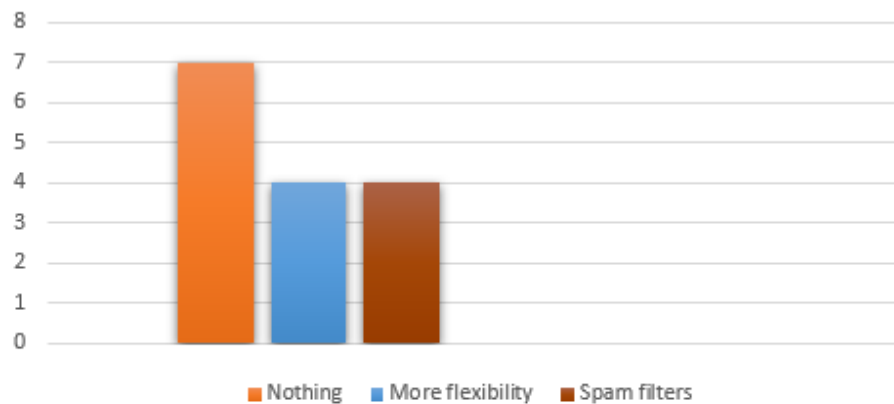
Q4). Graph Analysis: 53% (8 students) has responded that they spend between 5 and 10 hours per week using the platform. 34% (5 students) are spending between 1 and 5 hours per week studying on the platform and the remaining 13% are devoting more than 10 hours per week.

These results conclude that more than half of the students spend approximately 2 hours per day staying on the platform, which is less than the recommended hours to study per day⁸. This shows that the engagement with the platform is low and only a small portion of the sample size is actively learning through the platform.

⁸ Dr Robert A. Hatch (n.d.) <http://users.clas.ufl.edu/ufhatch/pages/02-teachingresources/study/> (Accessed on 30 August 2022)

Question 5			
What we can improve in Moodle, what is your opinion?	Nothing	More flexibility	Spam filters
	7	4	4

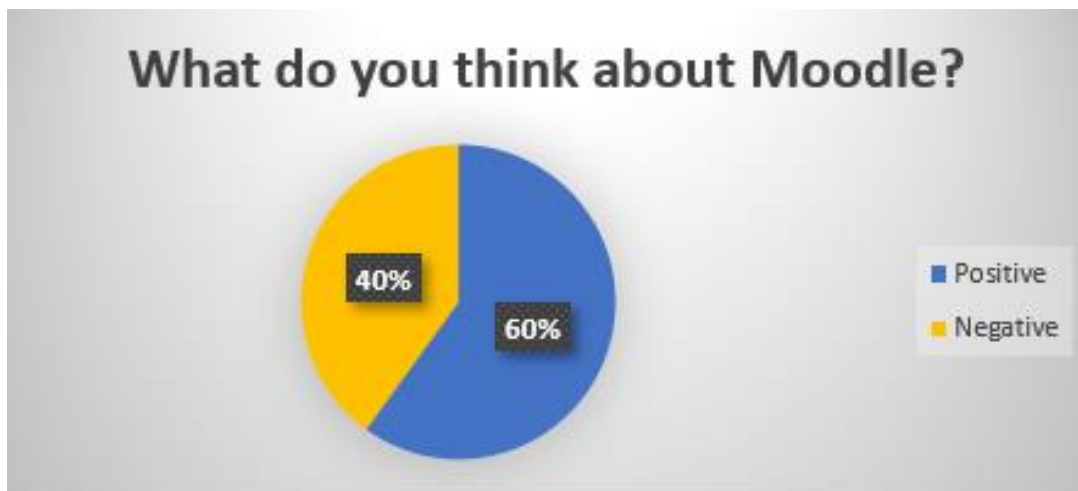
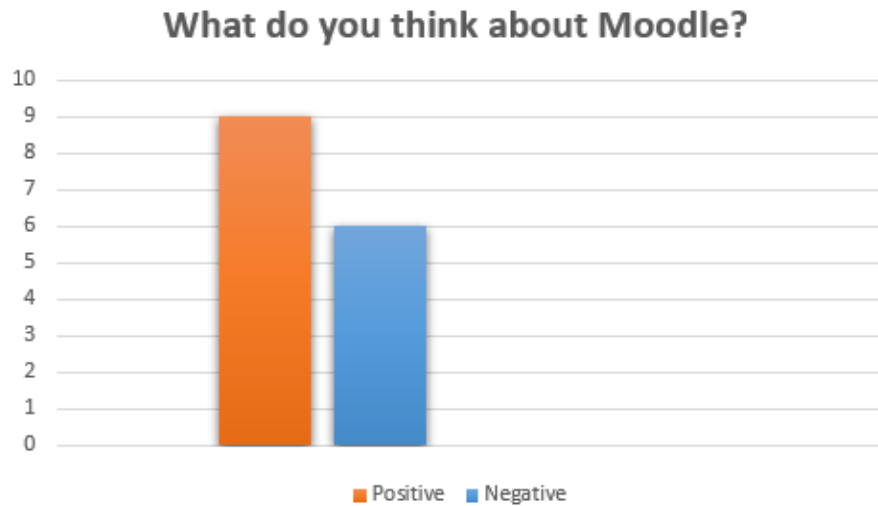
What we can improve in Moodle, what is your opinion?



Q5). Graph Analysis: 46% (7 participants) has answered that they would not change anything in the platform. 27% (4 participants) wants more flexibility in Moodle and the remaining 27% (4 participants) would like to have more options to filter the email sent from it.

These results conclude that almost half of the survey participants are fully satisfied with the platform and the remaining half are not satisfied with the user experience and the platform's functionality. This clearly indicates which parts of the platform must be changed in order to get the students more satisfied with it.

Question 6		
What do you think about Moodle?	Positive	Negative
	9	6



Q6). Graph Analysis: 60% (9 participants) has answered that they have positive opinion about the platform and 40% (6 participants) have a negative experience with it.

This shows that most of the students from the University of Wales Trinity Saint David London Campus have positive learning experience with the virtual learning environment and the platform Moodle. This clearly shows that changes must be made on Moodle.

Summary of the findings

From the analyses and the information gathered, I can say that most students are satisfied with the learning experience with virtual learning environment and the platform Moodle. The data collected shows that the students should willingly put more effort and take ownership of their virtual learning.

Additionally, the survey data shows that it is necessary for the Moodle to make changes on the User Interface. A visually appealing and simplified interface would make the platform more approachable and student friendly. This would help with better engagement of the students as they would be able to easily concentrate on their learning needs and goals. Moreover, Moodle should include options to filter and lower the number of emails sent to the users.

The existing literature review is pointing that the teachers should promote interaction and activate learners during the virtual classes in order to keep the students interested and engaged. Additionally, the research points out that learning only through virtual learning environment can lead to sense of isolation in the students and that could influence their future success.

The limited time constrain on this task and the small number of surveys that I was able to carry out, limits the data collected and the statistical information that I was be able to present. Thus, the data collected represents only an essence of the impact of virtual learning environment on the learning experience of the students from University of Wales Trinity Saint David London Campus. For more in-depth understanding regarding the matter, I would recommend expanding the sample size, the number of questions in the survey and conducting one on one interview sessions.

Conclusion

As a conclusion, I can say that the virtual learning environment if set right can have a positive impact on the students by improving their engagement and learning. If VLE is not set right, the students would not feel interested, and this could impact their success in the future. Meaning that the teachers can implement more in-class activities and interactions for the students to keep their interest in the lectures and that would be beneficial for the student's feature.

The students from the campus are satisfied with Moodle and are willing to actively participate in the learning courses. The majority of the students are satisfied with the platform usability, but they are not spending the recommended time to study on it.

Moodle can make some user-experience changes in order to get the students more satisfied with the platform and that could lead to more engagement and study-time spend on it.

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