

BMSW4003

Digital Skills and Research Methods

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1.0 Introduction

Educational institutions have shut down their offline learning process for the COVID-19 pandemic. But it is not possible to close down the learning process for all around the year. So, Universities and colleges have started the online learning process. But many students feel uncomfortable in this process. Some of the students cannot afford the required devices and faces other distractions (Gonzalez and Rubia, 2020). So, complete research is needed in the virtual learning environment to make the process effective for all the students. This research, titled the impact of Virtual Learning Environment (VLE) – Moodle on students' learning experience at the University of Wales Trinity Saint David London Campus, has been carried out to facilitate this purpose.

2.0 Research Title

The key research title is ‘**the impact of Virtual Learning Environment (VLE) – Moodle on students’ learning experience at the University of Wales Trinity Saint David London Campus**’.

3.0 Rationale

Universities and colleges are conducting virtual learning processes to face the negative effect of COVID-19 on education. But thousands of students cannot cope up with the virtual learning environment. They are facing uncomfortable and demotivated to attend online classes (Konig and Glutsch, 2020). Besides, some learners have a lack of required devices to join the virtual classroom. Some are facing family barriers and other distractions. These factors have made the virtual learning environment ineffective for many students (Toquero, 2020). So, complete research is needed in the virtual learning environment to make the process effective for all the students. This research, titled **the impact of Virtual Learning Environment (VLE) – Moodle on students’ learning experience at the University of Wales Trinity Saint David London Campus**, has been carried out to facilitate this purpose.

4.0 Objectives

4.1 Primary objective

This research’s primary objective is to assess the impact of a virtual learning environment (VLE) on students and suggests necessary strategies to make effective VLE for all students.

4.2 Secondary objectives

The research’s secondary objectives include

- To assess existing literature on the virtual learning environment
- To identify the strengths and weaknesses of the VLE
- To evaluate the effects of VLE on the learners
- Develop strategies to improve the virtual learning environment

5.0 Literature Review

According to Alves (2017), “Virtual Learning Environment (VLE) is a web-based educational platform in which teachers and learners are the participants.” In the VLE process, universities provide all the materials in the web-based platform, and teachers are the main editors of these study materials (Avelino, 2017). Students can download these study materials at any time from the system during the period course session. Students can join online classes by the provided in VLE systems, and they can submit their assignments, research papers, and articles in this system (Costa, 2019).

One of the significant benefits of VLE is that it allows continuous learning opportunities to students during COVID-19 by eliminating the risk of infecting the virus. Dillenbourg (2018) has discussed several benefits of a Virtual learning environment, such as instant access to coursework, effective time management, immediate feedback on tests, improving ICT skills. The learners cannot collect the study manual from the course teachers for lockdown during the COVID-19 pandemic. But they can access at any time from home by dint of the virtual learning environment (Hincz, 2018). For successfully joining the online classes, learners must have good ICT skills like expertise in MS Word, Excel, PowerPoint, Zoom, Google Meet. A study conducted by Synteta shows that 77% of students among 100 students think that the Virtual learning process has improved their ICT skills (Synteta, 2020). Students must attend online classes, tests on time. So, a virtual learning environment also increases the time management skill of the students. The study conducted by Synteta also shows that 92% of students agreed that a virtual learning environment improves their time management skills (Synteta, 2020).

Few researchers, such as Pan, Cheok, and Yang, have argued that a virtual learning environment also has some limitations. According to the pan (2019), distractions are the main limitations of the virtual learning process. Pan concluded that distractions could be created from family members, noises, demotivation of learners for setting in front of the computer’s screen (Pan, 2019). Besides, 35% of students do not have the necessary devices and an internet connection to attend the online classes, tests, and other interactive sessions with the teachers (Fontainha, 2017).

Miranda concluded that although Virtual Learning Environment (VLE) has some limitations, it has become a familiar option today for the universities and students to continue the learning process and expand their knowledge during the COVID-19 pandemic (Miranda, 2020).

6.0 Methodology

This research has been conducted by applying both positivism and deductive research approaches. Positivism focuses on verified information (Giddings, 2016). Primary data has been used to implement the positivism approach. The deductive approach focuses on existing descriptive data (Burney, 2018). So, secondary data has been collected. Both qualitative and quantitative data are used to complete the research. Primary data is gathered by an online survey questionnaire, and secondary information is gathered by reviewing the existing literature.

7.0 Primary Data Analysis

A questionnaire has been used to collect student's responses to their experience of virtual learning. The total sample size is 10 (ten), and respondents are selected by applying random sampling technique. This an online survey and the questionnaire was sent to respondents via E-mail, Google drive, and OneDrive link.

7.1 Summarisation of the survey responses

Responses of the participants are the following. Here 1 denotes strongly agree, 2 denotes agree, 3 denotes neutral, 4 represents disagree, and 5 denotes strongly disagree.

Number of responses	Responses								
	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
1	2	2	2	1	2	1	4	3	5
2	1	2	3	3	4	2	5	3	4
3	1	2	1	2	5	1	2	1	2
4	2	2	2	2	3	2	5	1	2
5	2	4	1	1	5	2	4	1	3
6	1	2	1	2	2	1	4	1	2
7	1	1	2	2	4	2	2	1	4
8	1	4	2	2	4	1	5	1	2
9	2	1	1	2	5	1	4	1	2
10	1	1	1	2	4	2	3	1	4

Table 7.1.1: Responses of the participants in the survey

7.2 Analysis of the responses

Q1. The frequency and Percentage of the statement “ You are satisfied with overall online learning “ is the following.

Code	Response Criteria	Frequency	Percentage
1	Strongly Agree	6	60%
2	Agree	3	40%
3	Neutral	0	0%
4	Disagree	0	0%
5	Strongly Disagree	0	0%

Table 7.2.1: Responses of Q1

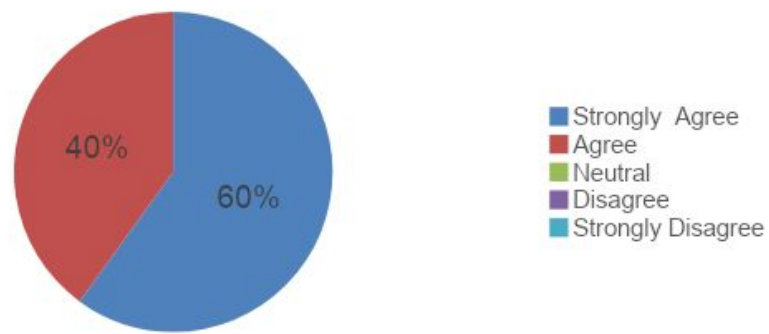


Figure 7.2.1: Responses of Q1

60% of students strongly disagree that they are satisfied with overall online learning, and 40% agrees that they are also satisfied with online learning. No students are dissatisfied.

Q2. The frequency and Percentage of the statement “ You have access to the necessary devices for online learning “ is the following.

Code	Response Criteria	Frequency	Percentage
1	Strongly Agree	3	30%
2	Agree	4	50%
3	Neutral	0	0%
4	Disagree	2	20%
5	Strongly Disagree	0	0%

Table 7.2.2: Responses of Q2

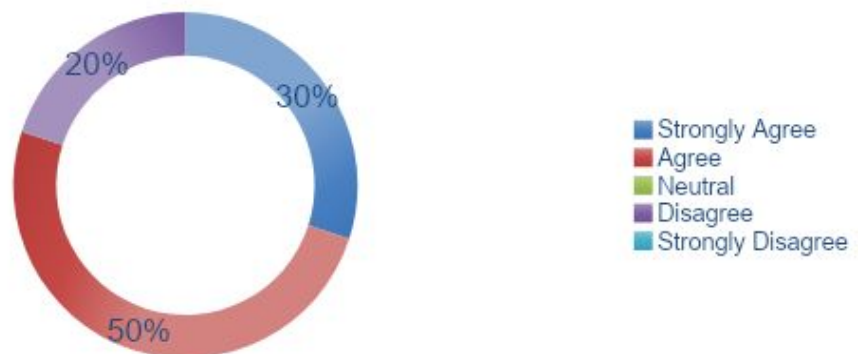


Figure 7.2.2: Responses of Q2

30% of learners strongly agree, and 50% of students agree that they have the necessary devices to attend the online learning process. 20% of students do not have the required devices to participate in online classes.

Q3. This statement shows the effectiveness of virtual learning process (Remote learning is effective for you).

Code	Response Criteria	Frequency	Percentage
1	Strongly Agree	5	50%
2	Agree	4	40%
3	Neutral	0	10%
4	Disagree	2	0%
5	Strongly Disagree	0	0%

Table 7.2.3: Responses of Q3

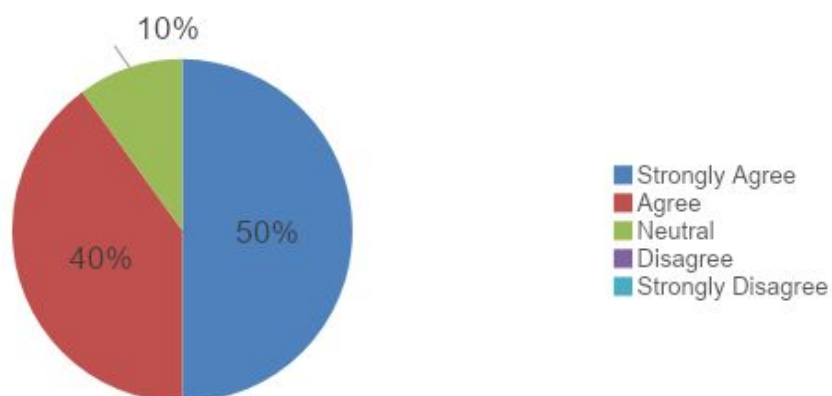


Figure 7.2.3: Responses of Q3

50% of learners strongly agree, and 40% of students agree that virtual learning is effective for them. 10% of the students are neutral.

Q4. This statement shows the effectiveness of virtual learning process (Your University and teachers are helpful and supportive for you in offering resources to learn from home).

Code	Response Criteria	Frequency	Percentage
1	Strongly Agree	2	20%
2	Agree	4	70%
3	Neutral	0	10%
4	Disagree	2	0%
5	Strongly Disagree	0	0%

Table 7.2.4: Responses of Q4

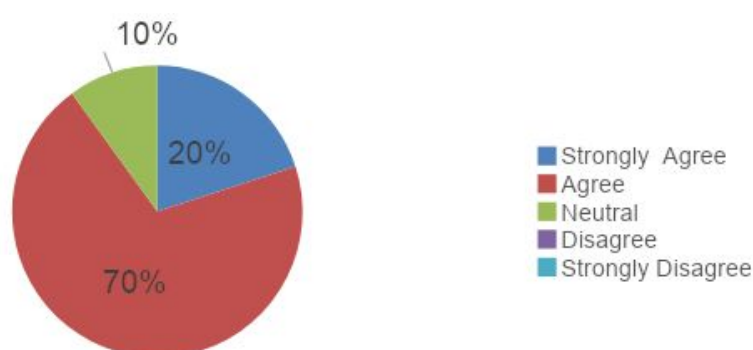


Figure 7.2.4: Responses of Q4

20% of students are strongly agreeing, and 70% of students agree that University and teachers support students to attend in virtual learning. But 10% of students are neutral.

Q5. This statement shows the effectiveness of virtual learning process (Remote learning is stressful for you during the Covid-19 pandemic).

Code	Response Criteria	Frequency	Percentage
1	Strongly Agree	0	0%
2	Agree	4	20%
3	Neutral	0	10%
4	Disagree	2	40%
5	Strongly Disagree	0	30%

Table 7.2.5: Responses of Q5

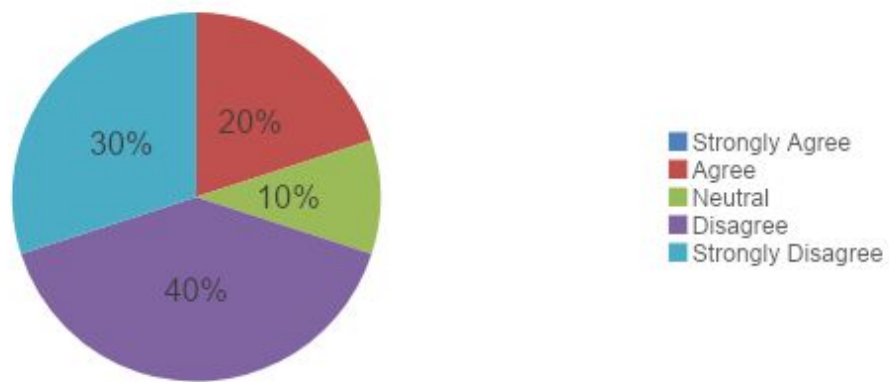


Figure 7.2.5: Responses of Q5

20% of students agree that they feel stressed in online classes during the COVID-19 pandemic. And 40% of students don not feel stress in joining online courses during the pandemic. 30% of learners strongly disagreed with the statement, and 10% are neutral.

Q6. This statement shows the effectiveness of virtual learning process (You can easily manage time for online learning).

Code	Response Criteria	Frequency	Percent
1	Strongly Agree	5	50%
2	Agree	5	50%
3	Neutral	0	0%
4	Disagree	0	0%
5	Strongly Disagree	0	0%

Table 7.2.6: Responses of Q6

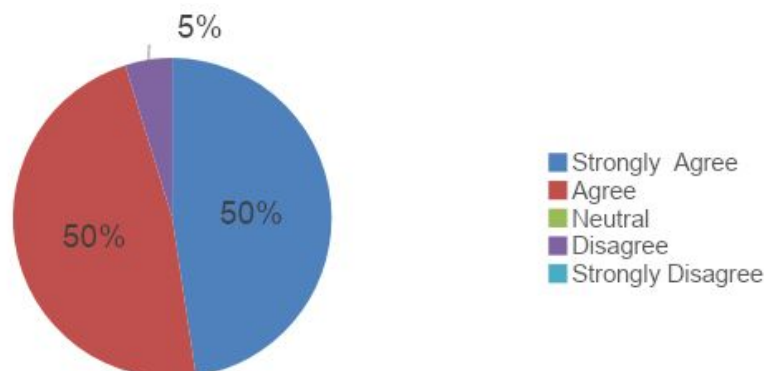


Figure 7.2.6: Responses of Q6

45% of students strongly agree that they can manage time to join online classes. Another 50% of students can agree that can manage time for online classes. Only 5% of students disagree that they cannot manage time for online classes.

Q7. This statement shows the effectiveness of virtual learning process (You face distraction for noises and family members during an online class).

Code	Response Criteria	Frequency	Percent
		0	0%
2	Agree	2	20%
3	Neutral	1	10%
4	Disagree	3	40%
5	Strongly Disagree	1	30%

Table 7.2.7: Responses of Q7

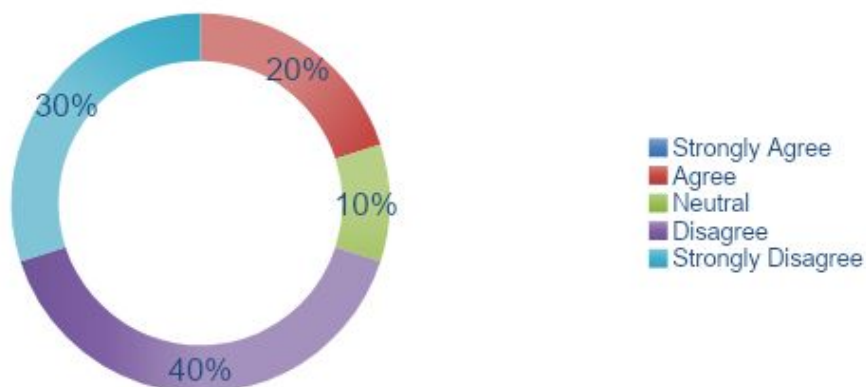


Figure 7.2.7: Responses of Q7

20% of students agree that they face distractions from family members and other noises during online participation of learning. 70% of students concluded that they do not feel distractions during virtual learning. 10% of students are neutral.

Q8. The frequency and Percentage of the statement “ You enjoy online learning “ is the following.

Code	Response Criteria	Frequency	Percent
1	Strongly Agree	8	80%
2	Agree	0	0%
3	Neutral	2	20%
4	Disagree	0	0%
5	Strongly Disagree	0	0%

Table 7.2.8: Responses of Q8



Figure 7.2.8: Responses of Q8

80% of students reported that they are enjoying online learning and 20% of students are neutral.

Q9. The frequency and Percentage of the statement “ You recommend continuing online education during the post-pandemic period “ is the following.

Code	Response Criteria	Frequency	Percent
1	Strongly Agree	0	0%
2	Agree	5	50%
3	Neutral	1	10%
4	Disagree	3	30%
5	Strongly Disagree	1	10%

Table 7.2.9: Responses of Q9

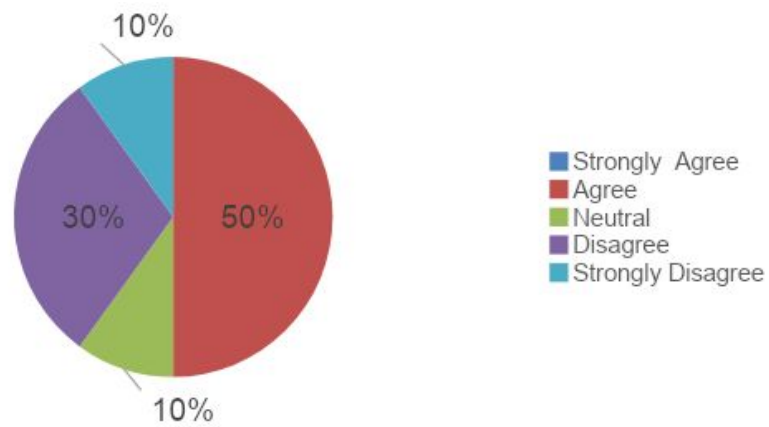


Figure 7.2.9: Responses of Q9

50% of students are consent with continuing virtual learning during the post-pandemic period. 30% of students disagree, and 10% of student strongly disagree about continuing virtual learning during the post-pandemic period. Another 10% are neutral.

8.0 Secondary Data Analysis

A study conducted by Synteta shows that 77% of students among 100 students think that the Virtual learning process has improved their ICT skills (Synteta, 2020). Students must attend online classes, tests on time. So, a virtual learning environment also increases the time management skill of the students. 92% of learners agree that virtual learning helps them to improve their time management skills. (Synteta, 2020). Distractions are the main limitation of the virtual learning process. Distractions can be generated from family members, noises (Pan, 2019). Besides, 35% of students do not have the necessary devices to join online classes, tests, and other interactive sessions with the teachers (Fontainha, 2017). However, the virtual learning environment has some negative aspects which minimal consideration of the pandemic situation. So, researchers agree of continuing virtual learning process during COVID-19 pandemic.

9.0 Conclusion and Recommendations

9.1 Conclusion

Around 90% of students are satisfied with the virtual learning environment, and 80% of the students have the necessary devices and internet connection to join the online learning process. 90% of learners agree that online learning is effective for them, and they also concluded that University and teachers are also supportive of making effective the virtual learning environment. 20% of students face distractions during online classes. Around 95% of students think that VLE improves their time-management and ICT skills. Almost 50% of students agree to continue the virtual learning process during the post-pandemic period. It is concluded that VLE is effective for nearly 85% of learners, but some students are facing difficulties due to lack of devices, motivation to join online classes.

9.2 Recommendations

After analysing the primary and secondary data, the following recommendations have been offered.

- Teachers must be supportive to motivate students to join VLE.
- University must support students, who have a lack of required devices, to arrange necessary materials for VLE.
- Teachers must focus on ensuring interactive virtual learning sessions to motivate the learners.

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Appendix

Appendix 1: Survey Questionnaire

I am Zoriana, a student at the University of Wales Trinity Saint David London Campus. I am conducting research **titled the impact of Virtual Learning Environment (VLE) – Moodle on students' learning experience at the University of Wales Trinity Saint David London Campus**. I have prepared a questionnaire to collect information about the student's experience with online learning offered by the University of Wales Trinity Saint David London Campus. You are randomly selected to participate in this survey. You will not be compensated for providing your response. I am assuring you that your provided information will only be used for research purposes, and no information will be disclosed to others.

* Please write your name:

* Please check the appropriate box about your gender.

☐ Male ☐ Female ☐ Other

* Please indicate your marital status:

☐ Married ☐ Unmarried ☐ Others

The following statement has been made to determine the students' experience level on the virtual learning environment offered by the University of Wales Trinity Saint David London Campus; please tick (✓) the boxes you think are appropriate.

Where 1= Strongly Agree, 2 = Agree, 3= Neutral, 4= Disagree and 5 = Strongly Disagree.

Questions	1. Strongl y Agree	2. Agree	3. Neutral	4. Disagre e	5. Strongly Disagre e
Q1. You are satisfied with overall online learning.					
Q2. You have access to the necessary devices for online learning.					
Q3. Remote learning is effective for you.					

Q4. Your university and teachers are helpful and supportive for you in offering resources to learn from home.					
Q5. Remote learning is stressful for you during the Covid-19 pandemic.					
Q6. You can easily manage time for online learning.					
Q7. You face distraction for noises and family members during an online class.					
Q8. You enjoy online learning.					
Q9. You recommend continuing online learning during the post-pandemic period.					

Thank you for your heartiest cooperation. If you intend to get our research data, then we are obliged thereby.