



MODULE CODE/ COD Y MODIWL: BMSW4003
DIGITAL SKILLS AND RESEARCH METHODS

Student Name: Huminatu Helen Deen

Student ID: 1905866

Lecturer: Mr Fernando

Table of Contents

Introduction:.....	1
Rationale of the research:.....	1
Objectives of the study:.....	2
Research Methodology:.....	2
Sampling size and techniques:.....	2
Data Collection Method:.....	3
Questionnaire for data collection:.....	3
Data Analysis:.....	5
Demographic data analysis of the participants:.....	5
Primary data analysis:.....	6
Secondary Data Analysis:.....	8
Conclusion and Recommendations:.....	9
References:.....	10

List of Figure

Figure 1: Sexual orientation of the participating students.....	5
Figure 2: age group classification of the students using VLE.....	5

List of Tables Y

Table 1: Survey questions for the research.....	3
Table 2: Survey questions for the research.....	3
Table 3: Survey questions for the research.....	4
Table 4: Primary data analysis.....	6
Table 5: primary data analysis.....	7

**Title of the study: "Impact of Virtual Learning Environment (VLE) – Moodle
on students' learning experience at the University of Wales Trinity Saint
David London Campus"**

Introduction:

Virtual learning environment (VLE) is an internet-based learning platform through which students can access the academic contents from anywhere of the world and study the contents without the face to face auditory lectures (Chou and Liu, 2018). During the last decade, the impact of virtual learning environment has evolved as an attractive research topic. A notable number of researches have been conducted on different aspects of the virtual learning environment. A well-structured virtual learning environment empowers the learning opportunity of the students and makes educational contents handier for the students. Besides the usual academic skill development, the virtual learning environment has enabled the students to improve their digital skills and communication skills through the internet. Using the virtual learning platform the students can develop skills to different sophisticated online tools like presentation tools, online homework, video conferencing, e-mail communication, online interview etc. (Pulford, 2019).

Rationale of the research:

According to the earlier researches, the virtual learning environment has a significant impact on the learning experience of the students. Kalayci, (2018) investigated the impact of the virtual network in terms of the effectiveness of the contents in the online platform. It was found that most of the students using the virtual learning environment found the contents helpful while a few numbers of students complains about the quality of the contents. The reason of this kind of complaints is that in the traditional learning environment students can easily interact with the instructors in case of any complexity arises which not very effective in the virtual learning environment (Ismail, 2019). Shandilay, (2018) conducted a comparative study on the independent use of the virtual learning environment and the use of a virtual learning environment along with the traditional auditory lecture system. In this study, it was found that virtual learning environment is not very effective if it is used independently and effectiveness increases if it is used as a supportive tool of the traditional lecture-based teaching method. From the earlier researches, it is seen that virtual learning is an important topic in the field of academic research.

There are a number of issues which should be investigated in this research topic. There are three different types of the virtual learning environment: the first type of VLE includes too much information which sometimes discourages the students to use the platform, the second type includes too little information which does not come to good use of the students and the last type includes just the sufficient amount of information which is regarded as most beneficial for the students (Hampel and Dancsházy, 2017). So, it is seen that there are multiple dimensions of VLE and a lot of issues are still uncovered regarding the usefulness of VLE. More researches are required in this topic to establish a standard for a virtual learning environment which will be able to provide the maximum benefits to the students. This research will also focus on the effectiveness of the VLE from different perspectives of the students and enrich the existing literature on this topic.

Objectives of the study:

This study has some distinctive objectives. The objectives of the research are:-

- To assess the scenario of a virtual learning environment in the University of Wales Trinity Saint David London Campus.
- To analyze the effectiveness of the VLE in the University of Wales Trinity Saint David London Campus.
- To understand the standard way of establishing a virtual learning environment in the University of Wales Trinity Saint David London Campus.
- To recommend the way of establishing standard VLE in the University of Wales Trinity Saint David London Campus.

Research Methodology:

This research has been designed to collect both primary and secondary data from the students of the University of Wales Trinity Saint David London Campus who have access to the virtual learning environment. The primary data has been selected as the research required direct response from the students to analyze the effectiveness of the VLE platform. Secondary data may not be very much effective and available from the perspective of this university. The targeted primary data is expected to show minimum bias and maximum representativeness.

Sampling size and techniques:

There are a number of sampling methods in primary data collection. Stratified sampling method and random sampling methods are the two most suitable sampling methods in this research

(Kumar, 2018). The researcher has selected the simple random sampling method for this research. The researcher selected a sample size of 50 students. The students were randomly selected from the student registration list of the university. It was assumed that all students in the university have access to the VLE platform. In the random sampling method, all the participants in the research have an equal chance of being selected.

Data Collection Method:

The targeted primary data will be collected through a survey questionnaire method. There are a number of ways of data collection. The promising way of data collection in the primary source is questionnaire survey, observations, focus group discussion, interview etc. (Goddard and Melville, 2018). In this survey questionnaire method, data have been collected from the students through direct interview. The students were provided with the printed questionnaires and the responses were recorded. Before collecting data all the selected students were instructed to use the virtual learning platform for several times. The students were also instructed regarding the effective techniques of using the VLE platform. This method ensured that all the students have enough knowledge of the platform and used the platform for a significant number of times. This process helped the researcher to collect the most representative data from the samples.

Questionnaire for data collection:

Table 1: Survey questions for the research

Questions regarding the demographic profile of the participants	
1	Gender of the participants ☐ Male ☐ Female
2	Age of the participant ☐ 15-20 ☐ 20-25 ☐ 25-30 ☐ 30-35 ☐ 35 and above

Table 2: Survey questions for the research

Yes/No questions regarding the use of VLE in the University of Wales Trinity Saint David London Campus	
1	Are you a regular user of VLE? ☐ Yes ☐ No
2	Do you this VLE has sufficient content for your academic study?

	☐ Yes ☐ No
3	Have you been given proper training for making effective utilization of VLE? ☐ Yes ☐ No
4	Do you believe that your academic performance has improved after using VLE? ☐ Yes ☐ No

Table 3: Survey questions for the research

Questions regarding different aspects of VLE	
1	How frequently you use the virtual learning environment of the university? ☐ Never ☐ Once in a week ☐ Twice in a week ☐ Thrice in a week ☐ More than three times in a week
2	What type of challenge do you face in using the VLE? ☐ Adaptability ☐ Technical ☐ Computer Competency ☐ Time Management ☐ Others
3	What type of view do you make in the VLE platform? ☐ Resource view ☐ Forum view ☐ User view
4	What is your judgment regarding the VLE of the university? ☐ It is too much informative ☐ It is too less informative ☐ Just sufficiently informative
5	What's your feeling about the learning module? ☐ The module was boring ☐ The module was relaxing ☐ The module was enjoyable
6	What is your main source of learning satisfaction? ☐ A wide variety of learning material

	- o Elimination of the place barrier - o Immediate information acquisition - o Flexibility and independency in learning - o Excellent learning environment
--	---

Data Analysis:

Demographic data analysis of the participants:

The demographic profile analysis of the students is necessary to understand the use of the VLE in male and female students. The data collected from the students' registration list of the university it has been found that students who use the VLE are 58% male and 48% are female.

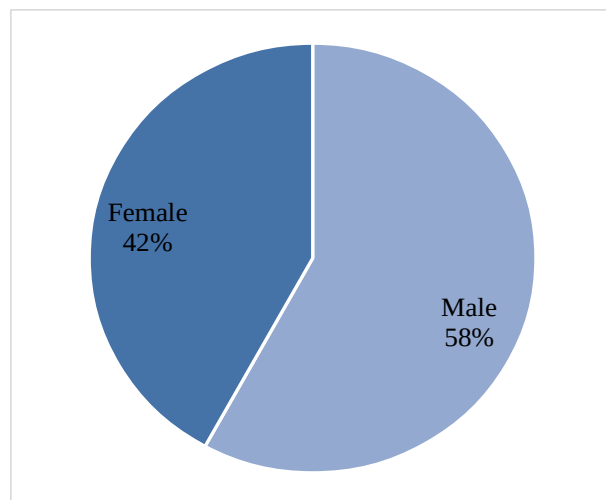


Figure 1: Sexual orientation of the participating students

The age group classification of the students shows that most of the students who are using the VLE platform are aged between 18 to 27 years old. Only 10% of students who are aged 34 years and above are using the VLE. This finding indicates that young students are more tech-savvy and more interested in using the virtual learning environment.

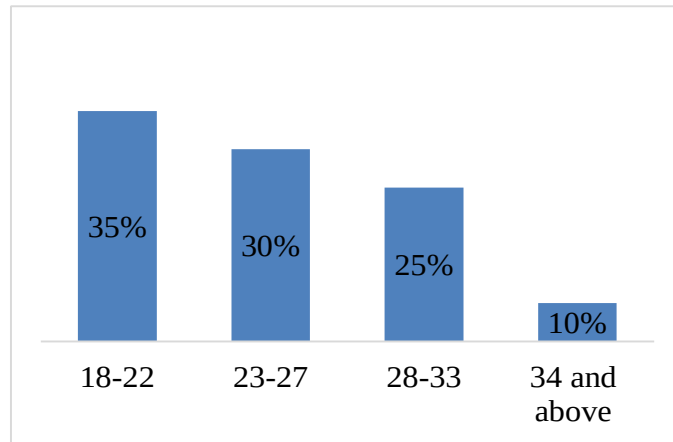


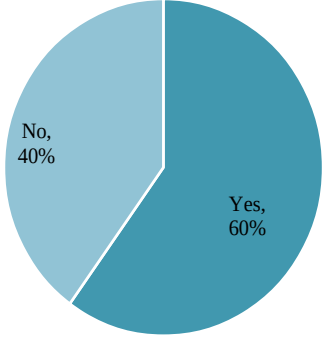
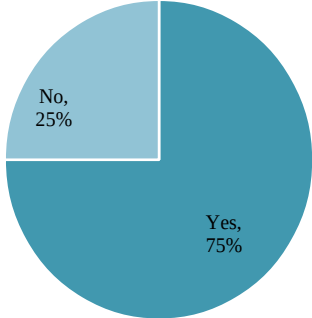
Figure 2: Age group classification of the students using VLE

Primary data analysis:

The primary data regarding the impact of virtual learning environment has been analyzed in the section to derive the conclusion regarding the usefulness of VLE in the University of Wales Trinity Saint David London Campus.

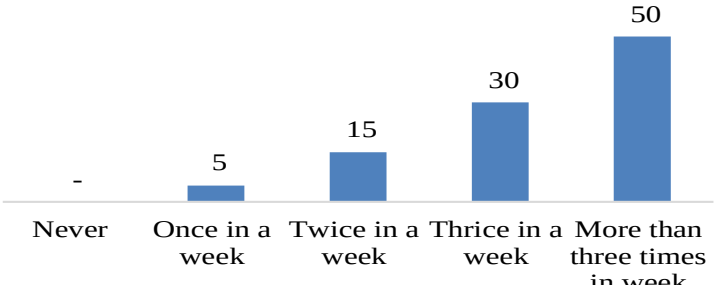
Table 4: Primary data analysis

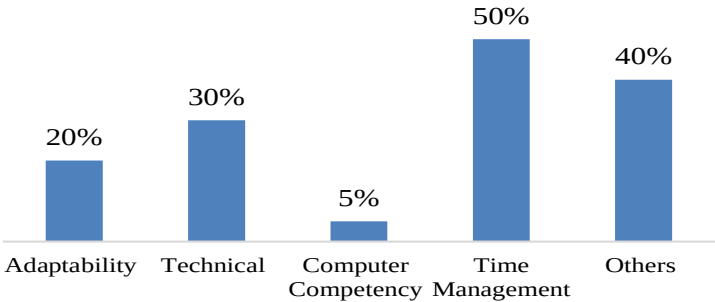
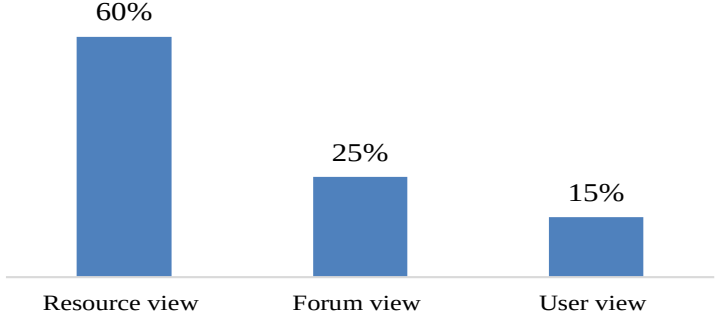
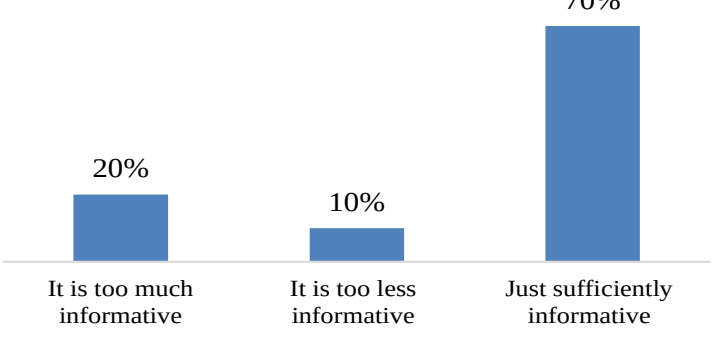
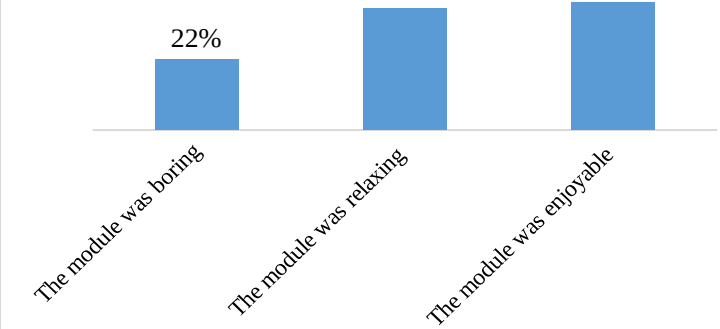
Yes/No questions regarding the use of VLE in the University of Wales Trinity Saint David London Campus							
Are you a regular user of VLE?	<table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>85%</td> </tr> <tr> <td>No</td> <td>15%</td> </tr> </tbody> </table>	Response	Percentage	Yes	85%	No	15%
Response	Percentage						
Yes	85%						
No	15%						
Do you this VLE has sufficient content for your academic study?	<table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>70%</td> </tr> <tr> <td>No</td> <td>30%</td> </tr> </tbody> </table>	Response	Percentage	Yes	70%	No	30%
Response	Percentage						
Yes	70%						
No	30%						

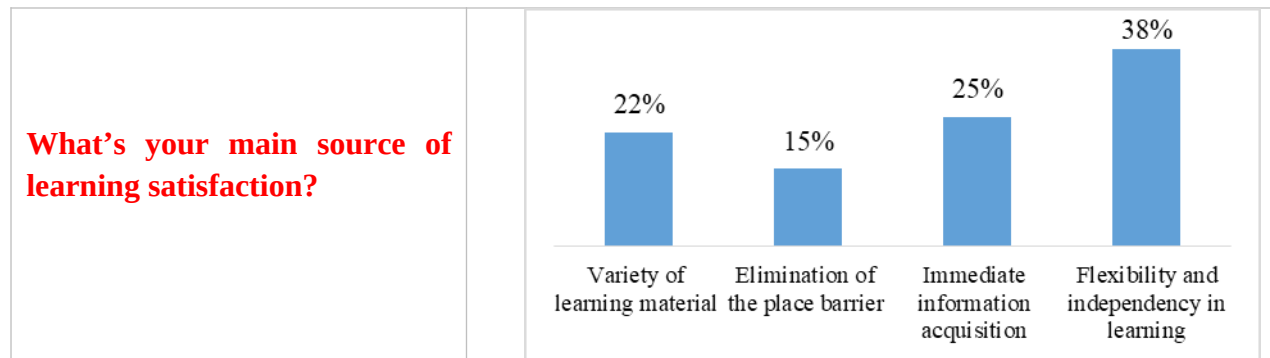
Have you been given proper training for making effective utilization of VLE?	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>60%</td> </tr> <tr> <td>No</td> <td>40%</td> </tr> </tbody> </table>	Response	Percentage	Yes	60%	No	40%
Response	Percentage						
Yes	60%						
No	40%						
Do you believe the use of VLE along with the traditional lectures in the university has positively impacted your academic performance?	 <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>75%</td> </tr> <tr> <td>No</td> <td>25%</td> </tr> </tbody> </table>	Response	Percentage	Yes	75%	No	25%
Response	Percentage						
Yes	75%						
No	25%						

In the first section of the primary research, the participants were asked a number of yes/no questions regarding the effectiveness of VLE. It was found that 85% of the participants regularly use the VLE and 15% use it on an irregular basis. 70% of the participants stated that the VLE has sufficient amount of content and 30% replied that the VLE does not contain just sufficient. 60% of the participants replied in the positive that they have been provided with sufficient training to make proper utilization of the VLE and 40% replied that the training was not sufficient for them. 75% of the participants who use the VLE replied that their academic performance has significantly improved after using the VLE.

Table 5: primary data analysis

Questions regarding different aspects of VLE													
How frequently you use the virtual learning environment of the university?	 <table border="1"> <thead> <tr> <th>Frequency</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Never</td> <td>0</td> </tr> <tr> <td>Once in a week</td> <td>5</td> </tr> <tr> <td>Twice in a week</td> <td>15</td> </tr> <tr> <td>Thrice in a week</td> <td>30</td> </tr> <tr> <td>More than three times in week</td> <td>50</td> </tr> </tbody> </table>	Frequency	Count	Never	0	Once in a week	5	Twice in a week	15	Thrice in a week	30	More than three times in week	50
Frequency	Count												
Never	0												
Once in a week	5												
Twice in a week	15												
Thrice in a week	30												
More than three times in week	50												

What type of challenge do you face in using the VLE?	 <table border="1"> <thead> <tr> <th>Challenge</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Adaptability</td> <td>20%</td> </tr> <tr> <td>Technical</td> <td>30%</td> </tr> <tr> <td>Computer Competency</td> <td>5%</td> </tr> <tr> <td>Time Management</td> <td>50%</td> </tr> <tr> <td>Others</td> <td>40%</td> </tr> </tbody> </table>	Challenge	Percentage	Adaptability	20%	Technical	30%	Computer Competency	5%	Time Management	50%	Others	40%
Challenge	Percentage												
Adaptability	20%												
Technical	30%												
Computer Competency	5%												
Time Management	50%												
Others	40%												
What kind of view do you make in the VLE?	 <table border="1"> <thead> <tr> <th>View</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Resource view</td> <td>60%</td> </tr> <tr> <td>Forum view</td> <td>25%</td> </tr> <tr> <td>User view</td> <td>15%</td> </tr> </tbody> </table>	View	Percentage	Resource view	60%	Forum view	25%	User view	15%				
View	Percentage												
Resource view	60%												
Forum view	25%												
User view	15%												
How much information do you think the VLE is?	 <table border="1"> <thead> <tr> <th>Information Level</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>It is too much informative</td> <td>20%</td> </tr> <tr> <td>It is too less informative</td> <td>10%</td> </tr> <tr> <td>Just sufficiently informative</td> <td>70%</td> </tr> </tbody> </table>	Information Level	Percentage	It is too much informative	20%	It is too less informative	10%	Just sufficiently informative	70%				
Information Level	Percentage												
It is too much informative	20%												
It is too less informative	10%												
Just sufficiently informative	70%												
What's your feeling about the learning module?	 <table border="1"> <thead> <tr> <th>Feeling</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>The module was boring</td> <td>22%</td> </tr> <tr> <td>The module was relaxing</td> <td>38%</td> </tr> <tr> <td>The module was enjoyable</td> <td>40%</td> </tr> </tbody> </table>	Feeling	Percentage	The module was boring	22%	The module was relaxing	38%	The module was enjoyable	40%				
Feeling	Percentage												
The module was boring	22%												
The module was relaxing	38%												
The module was enjoyable	40%												



The second part of this primary data analysis focuses on the users' feedback regarding different aspects of the VLE and the effectiveness of the VLE for the academic performance improvement of the students. From the replies of the first questions, it is seen that 50% of the students use the VLE for more than three times in a week and only less than 10% uses the platform for once or twice in a week. Those who face complexities in using the VLE find time management as the most challenging issue in getting the maximum benefit from the platform. 60% of the students who use the VLE use it for the resource view and others use it for forum and user view. Though the majority of the students replied that the VLE is just sufficiently informative a good portion also stated it too poorly or overly informative. **The overall feeling of the students regarding the module was that most of them found the module as either relaxing or enjoyable. Only a few has found it as boring. Moreover, flexibility and independency in learning were the main sources of satisfaction for the participants. Immediate information acquisition facility was another important source of satisfaction for a large portion of the participants.**

Secondary Data Analysis:

The secondary data collected from the academic register of the university shows that almost 60% of the students use the VLE platform set up in the university. The collected data also shows that 70% of the students who use the VLE besides the regular lectures perform better than those do not use the VLE. In secondary research, it was also found that 30% of the students are unwilling to use the VLE on a regular basis. The reason is most of them faces numerous problems like time management, technical problem etc. This kind of problems can be solved through proper training and engagement.

Conclusion and Recommendations:

From the analysis of the primary data, it is seen that most of the students frequently use the VLE and they also find the platform sufficiently informative. In the research rationale, it has been

shown that some earlier researched found that VLE sometimes contains too less to too much information. This kind of feedback also been found in this research. 30% of the students replied that the VLE is too much or too less informative. On the other hand, most of the students think that the training that they have been provided to use the VLE is sufficient where a good portion commented that the training is not sufficient. Because of the lack of training, the students are facing a number of challenges in using the platform. The overall analysis shows that VLE has a significant positive impact in the academic development in the university as 75% of the students unanimously said that the combination of VLE with the traditional lecture-based learning method has significantly improved their academic performance.

In order to make the VLE more effective for the students the following recommendations can be followed:

- Make the VLE sufficiently informative as too less and too much information hinders the usability of the platform.
- Provide every student with proper training on using the platform so that they can properly use them.
- Establish proper linkage with the lecture-based learning resources and the VLE to ensure access to those.
- Encourage the students to increase their view by making the contents more attractive.
- Make a periodic assessment of the improvement students make by using the VLE and take necessary steps if the result is not satisfactory.

References:

Chou, S. and Liu, C., 2018. Learning effectiveness in a Web-based virtual learning environment: a learner control perspective. *Journal of Computer Assisted Learning*, 21(1), pp.65-76.

Goddard, W. and Melville, S. (2018). *Research methodology*. Kenwyn, South Africa: Juta & Co.

- Hampel, G. and Dancsházy, K. (2017). Creating a Virtual Learning Environment. *Journal of Agricultural Informatics*, 5(1).
- Ismail, S. (2019). Using a Virtual Learning Environment for Problem Based Learning (P.B.L). *SSRN Electronic Journal*.
- Kalayci, S. (2018). Students' Attitudes towards Collaborative Tools in A Virtual Learning Environment. *Educational Process: International Journal*, 4(1-2), pp.71-86.
- Kumar, R. (2018). *Research Methodology*. London: SAGE Publications.
- Pulford, B., 2019. The influence of advice in a virtual learning environment. *British Journal of Educational Technology*, 42(1), pp.31-39.
- Shandilay, D. (2018). Virtual Learning Environment Scenario in Higher Education (Web-based Learning). *International Journal of Management and Economics Invention*, 04(05).