

INDIVIDUAL REPORT

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DSR ASSESSTMENT 2

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INTRODUCTION:

Virtual learning environment (VLE) is an online education-based platform that has been adopted by various institutes for teaching and learning. VLE is the modern way to increase efficiency in the learning environment, by using virtual reality systems in education (Odrekhivskyy et al., 2019). Digitalization in the educational environment helps to develop and support the education system in institutions (Strutynska et al., 2021). The VLE aims to provide digital tools and techniques as well as provide all the facilities of the traditional education system virtually. This research report aims to find the impact of VLE- Moodle on the student's learning experience at the University of Wales Trinity Saint David London Campus using primary and secondary researches and a discussion have made on its impact on the student.

AIM:

The aim of this research is to determine the effect of a virtual learning environment (VLE) on the learning experience of the student of UWTSD.

OBJECTIVES:

Several objectives of this research are:

- To inform the students about VLE, its advantages and skills required for it.
- To find the students' experiences of UWTSD.
- To develop the VLE of UWTSD if needed.
- To discuss the limitations and barriers of VLE.
- To analyze the strategies to minimize the limitations.

RATIONALE OF THE RESEARCH:

The sudden changes in the learning procedure can be sometimes, problematic for the students as well as the teachers. The teachers must be properly trained so that they can adopt this change and utilize the tools of effective VLE and the students also must be properly informed about it and provided the required tools and materials.

LITERATURE REVIEW:

Hamutoglu et al. (2020) suggested that the VLE is a web-based software system, which enables the students to communicate with the teacher as well as peers and it accesses the

learning resource without any restrictions of place and time. The main focus of VLE is to satisfy the students by providing them with enough learning activities that will help them in their education.

According to **Herrador-Alcaide et al. (2019)**, a virtual environment in learning is very effective for learning, especially for distant learning. E-learning provides education to the students by using information and communications technology (ICT). VLE provides satisfaction to the students by providing them with every facility that is needed.

RESEARCH METHODOLOGY:

The research methodology is the systemic way in which particular research should be conducted. The proper research methodology will indicate the research and data-collection method that will be used in the research (Opoku et al., 2016). There are two types of research methodologies. Those are quantitative and qualitative. The **quantitative method** will be used here for collecting data. Quantitative research is conducted when the collected data are in quantitative form (Pandey and Pandey, 2021). This method emphasizes numerical, mathematical and statistical data and emphasizes more on objective measurement. Both the **primary** and **secondary researches** have been conducted here. Primary research is to collect data using the primary sources of information whereas, secondary research is collecting information using the secondary source of information such as articles, research and so on. One of the most convenient methods of data collection quantitative research is the survey method. The survey method of data collection is planned, systematic and more reliable (Fithian et al., 2015). It collects data by providing questions. The **online survey** has been conducted here for data collection by following all the Covid precautions.

SAMPLING AND SAMPLE SIZE:

A sample is a group of individuals that are selected for research, which will be the proper representative of the particular population (Etikan and Bala, 2017). Sampling is a procedure or method that is employed by a researcher to systematically select a proper sample for the study (Sharma, 2017). There are various sampling methods. The sampling method that will be used here is **non-probability sampling**. In non-probability sampling, the probability of inclusion of each individual of the sample is not equal. **Self-selection sampling** is used to collect data. Self-selection is where the inclusion and exclusion criteria are specified and the individual from the population can choose to participate willingly based on the criteria (Berndt, 2020). A sample of 368 students has been taken for this research.

DATA COLLECTION TOOL:

Selecting a proper data collection tool is one of the important steps to conduct research properly. The data collection tool that is used in this survey to collect data is the 5 point attitude scale Likert to find the students' attitude on VLE.

ETHICAL CONSIDERATION:

Every research should be conducted following ethical guidelines. The GDPR guidelines have been followed while conducting this research (GDPR, 2021).

- All personal information of the participants is kept secure.
- Full consent of the participants has been taken.
- Participants are fully informed about the research.
- Participants are not insisted to give their responses.
- The responses will not be disclosed.

Research timeline with Gantt chart:

The Gantt chart of the whole research conduction is as follows:

Activities	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Finding the aims and objective of the research									
Literature review									
Finding methodology									
Sampling									
Preparing questionnaire									
Conducting primary research									
Analyze the data									
Conducting secondary research									

PRIMARY RESEARCH:

Data collection and discussion:

Questionnaire and the response of the quantitative survey:

Table 1: number of responses

Survey Questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Responses

Question 1: Do you agree that VLE-Moodle is better than face-to-face learning?	123	106	74	48	17	368
Question 2: Do you agree that VLE of UWTSD is providing efficient knowledge?	99	99	70	93	7	368
Question 3: Do you agree the faculty in VLE of UWTSD is properly adopting this system?	53	91	164	57	3	368
Question 4: Do you agree that UWTSD is providing you with all the facilities for VLE?	62	111	102	67	26	368
Question 5: Do you agree that your	166	103	78	13	8	368

academic skills have developed more after using VLE?						
Question 6: Do you agree that VLE of UWTSD has grown your interest in the study?	117	97	92	51	11	368
Question 7: Do you agree that the VLE of UWTSD needs further development?	34	53	98	106	77	368
Question 8: Do you agree about continuing your study using VLE?	128	103	96	29	12	368

Table 2: percentage (%) of responses

Number of questions	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total Responses
Question 1	33.42%	28.80%	20.10%	13.04%	4.62%	100 %
Question 2	26.90%	26.90%	19.02%	25.27%	1.90%	100 %
Question 3	14.40%	24.73%	44.56%	15.48%	0.81%	100 %
Question 4	16.84%	30.16%	27.72%	18.21%	7.07%	100 %

Question 5	45.10%	27.99%	21.19%	3.53%	2.17%	100 %
Question 6	31.79%	26.35%	25%	13.85%	2.98%	100 %
Question 7	9.24%	14.40%	26.63%	28.80%	20.92%	100 %
Question 8	34.78%	27.99%	26.09%	7.88%	3.26%	100 %

Discussion:

The above responses show that a total 62.22% of students agree that VLE-Moodle of learning is better than the traditional face-to-face learning process. 53.8% of students agree that the VLE in UWRSD in providing efficient knowledge for them. 39.13% of students admitted that the teachers are adaptive to the VLE in UWTSD. Total 47% of students agreed that UWTSD is providing all the facilities that are important for the VLE. 73.09% of students admitted that their academic skills are developing while using VLE. 58.14% of students agreed that the implication of VLE in UWTSD have developed the learning interests of the student. 23.64% of students of UWTSD agreed that the VLE of this institute needs further development. Lastly, 62.77% of students have agreed with continuing VLE for their study.

SECONDARY RESEARCH:

Secondary research has been conducted based on three themes that are helpful to conclude.

Theme 1: the concept of VLE

According to **Jain (2015)**, a virtual learning environment or VLE is a platform that is used for supporting learning and teaching activities across the internet. VLE use the tool or application that helps conduct the learning and teaching activities such as taking classes, providing materials and many more. Nowadays many institutes have adopted the facility of VLE to develop their academic activities and spread it. Various commercial tools such as Moodle, Blackboard, also can be used for providing the facilities that an institution needs for adopting VLE.

Acevedo-Rincón and Flórez-Pabón (2019) suggested that VLE have become one of the best options for supporting the teaching of different levels of education. The inclusion of Information and Communication Technology (ICT) in the education system has become necessary for transforming training and information. It is especially helpful in higher education. The developed countries have adopted VLE several years ago. In countries with

less possibility, the inclusion of VLE has also been adopted but the progression is relatively slow.

Theme 2: impact of VLE on the students

Herrera (2017) conducted qualitative research on 210 students and 5 teachers for finding the effect of implying VLE in English as a foreign language (EFL). The majority of the students find the VLE beneficial and find the processes to be easy and functional. They feel motivated and enthusiastic while using VLE. They feel encouraged and gain self-confidence while developing their linguistic skills using VLE. They also show interest in technological activities and resources. It helps the students to reduce unnecessary internet surfing and use the time on learning. The interactive activities, immediate feedback and learning tasks made them satisfied while learning. They prefer VLE more than face-to-face traditional learning.

Lacka et al. (2021) stated that Digital technologies, including Social Media (SM) and Virtual Learning environments (VLE), are necessary for Higher Education (HE) settings. The VLE plays an important role for the students in achieving their higher education goals. Although students are efficient for achieving the higher education goal even without the VLE, it provides additional resources and supports for the students in higher education. It helps the students for the further development of their study. Although it is beneficial, especially in the pandemic, the use of VLE should be controlled after the post-pandemic.

Another research by **Pererva et al. (2020)** has described that VLE provides various tools for both teachers and students that help to facilitate the learning experiences. It has the potential to foster learning like face-to-face traditional learning. VLE is not restricted to distance learning. It helps enrich the quality of learning in the students. It also can be used in traditional classrooms. The blended mode of learning is although better than traditional learning or VLE.

Theme 3: barriers of VLE and strategies to overcome it

Dung (2020) conducted a study using a sample of 205 students. There the researcher stated several problems that are faced by both students and the teachers for using the VLE. The lengthy online classes are tiring for the students and it causes boredom to the students. The electrical devices also heat up gradually after attending hours of online classes. The interactions with the students or the teachers are not always satisfying. The students also feel that their concentration has been reduced and their self-discipline also has been destroyed.

The boredom can be reduced using more activities and assignments during the classes. The tiredness can be reduced using small breaks in between the classes.

FINDINGS:

The primary research has found that the VLE has a great impact on the student of UWTSD. They agree more that the VLE is much better than face-to-face learning. They are satisfied with the services that are provided in UWTSD for developing the VLE. They want to continue their study using VLE even after. The secondary research found that nowadays VLE become an important part of education. It aims to provide knowledge by using various tools and ICT. Secondary research also has supported that the primary research about the students' satisfaction with using VLE. Lastly, it identified several barriers of VLE and provides some strategies to overcome those barriers.

RECOMMENDATION:

After conducting the whole research, several recommendations can be made so that other researchers can conduct the research properly:

- The fund must be raised for conducting the research properly.
- The research must be done in a proper virtual learning environment.
- The sample should be selected more strategically and accurately.
- The technologies for VLE should be developed so that it is useful for every student.
- The barriers of VLE should be overcome strategically.

CONCLUSION:

Thus, it can be concluded that the VLE is more efficient than the traditional education system in UWTSD. Although it has some barriers they can be overcome strategically. Both primary and secondary research has been conducted. The primary research suggests that many students of UWTSD prefer the VLE over face-to-face learning. Secondary research disclosed its impact on students and suggests that although VLE is efficient it is better to use blended mode in the education system.

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