

DIGITAL SKILLS AND RESEARCH METHODS

Executive summary:

This particular report focuses over the effectiveness of VLE in different universities and their effects on students learning processes. In this report discussion about the public opinion about VLE has been gathered to understand their self-assessment abilities. The concept of VLE arrives with different aspects that are highlighted in the report. The effectiveness of VLE is analysed through a secondary research. This creates an understanding about different aspects of VLE in a university environment and their effects on creation of a better knowledge base among students.

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Introduction

VLE refers to the Virtual Learning Environment, this is a method applied in electronic learning. In this method, the student and the teachers of the University of Wales Trinity Saint David London Campus need not be present physically at the same place. Electronic equipment is used in electronic learning to make the effective communication. However, there are certain restrictions on using this medium of learning. The students of the University of Wales Trinity Saint David London Campus may face technical difficulties during using this method of learning. This report focuses on the challenges and difficulties which the students of University of Wales Trinity Saint David London Campus may face when using this method of learning.

The objectives of this report are

- To discuss the challenges being faced by the students in using Virtual learning environment on the university.
- To find the potential solution to the problems of the students while using Virtual learning environment platforms.
- To analyse the potential ways of improvement of the Virtual learning environment for universities.

Method

List of equipment used

Internet-enabled electronic systems mainly, computers and android phones are used in gathering the data of primary research. In order to conduct secondary research, the usage of different peer-reviewed websites is done in this research process.

Explanation of procedures followed

The primary research method has been used to gather information from the VLE users. Firstly, the students were asked about their experience of using the platform. All the participants answered differently to this question. In order to complete the secondary research, several journals and articles are analysed. The journals and articles are related to the impact of VLE on the learning of the students. The analysis of the articles and journals also helped to develop knowledge about the limitation of using VLE. The journals and articles helped to explore the different aspects of using VLE. The analysis also helped to get the idea of the difference between the traditional ways of learning with VLE. In addition, ethical values are also followed to keep

the data genuine. The participants of the survey were not discriminated against in terms of race, gender, and societal status. All the collected data are used only for official purposes.

Sources of information

Relevant questions were asked to the students to gather information about their experience in using the VLE. On the other hand, Google scholar has been used to analyse the different aspects of the problems.

Reference to problems

Generally, the students face technical difficulties in using Moodle for VLE. In addition, the communication gap is also an issue in using VLE.

Result

Primary Data findings

Q1. What is the age group you belong to?

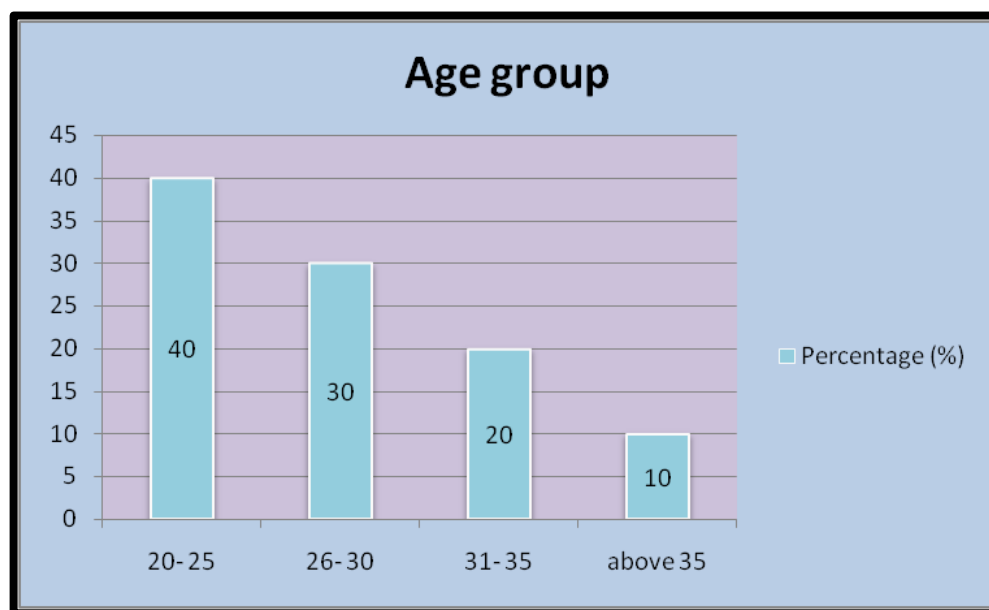


Figure 1: Discussion about the age group of respondents

(Source: Self-Developed)

The 20 respondents who answered this question, 40% of them belonged to the age group of 20-25, as generally, the students belong from this group of age. 30% of the people belong to the age group of 26-30 years. The age group of 31-35 years and above 35 years remained comparatively lower to 20% and 10% as there are only a few students who opt for higher quality.

Q2. Do you know there are different types of devices present related to VLE?

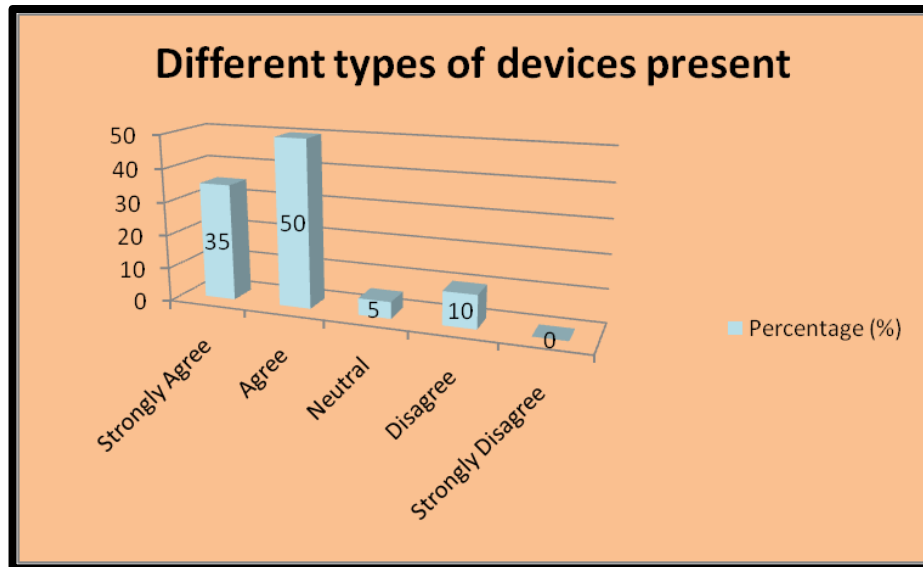


Figure 2: Different devices present in VLE

(Source: Self-Developed)

As interpreted by the above image, 35% of people have strongly agreed in the context as they have strong technical knowledge. Most of the people, which is around 50% of participants, answered to agree as they have the basic knowledge about technology and electronic platforms. 5% and 10% of people have answered neutrally and disagreed with the statements because they do not have strong knowledge of technology.

Q3. Do you know there are various issues you can face while using the equipment?

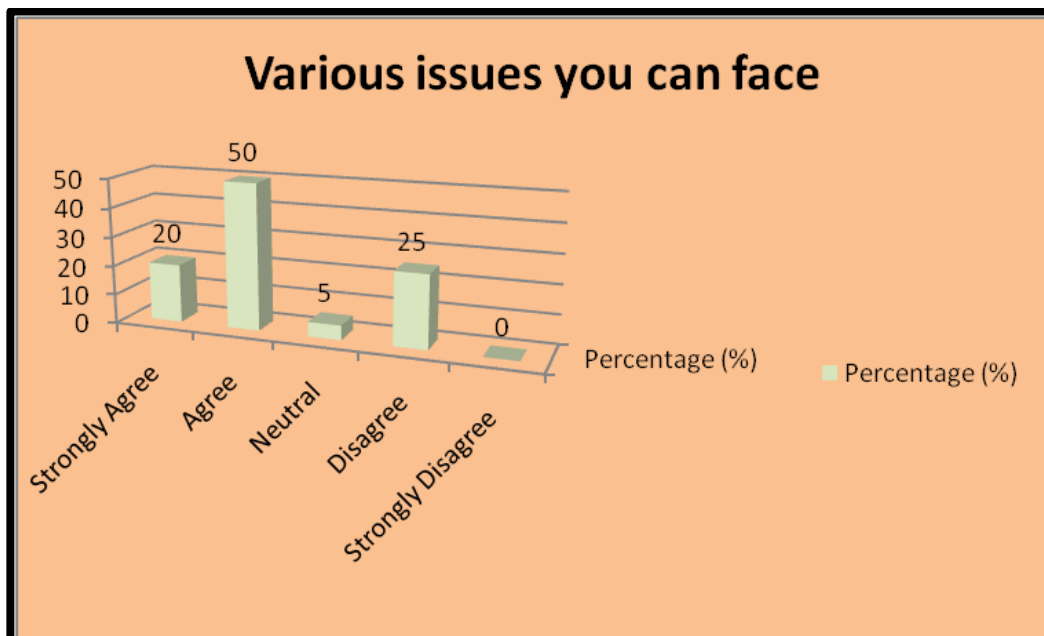


Figure 3: Discussion about the various issues that can appear in VLE

(Source: Self-Developed)

As per the interpretation of the above image, 20% of people have strongly agreed to the issues of the VLE. Maximum people have agreed to the statement as they have practical experience of VLE. However, 5% of people have answered neutrally to the question and 25% of people have disagreed with the statement.

Q4. Do you know there are different technical difficulties in using the devices?

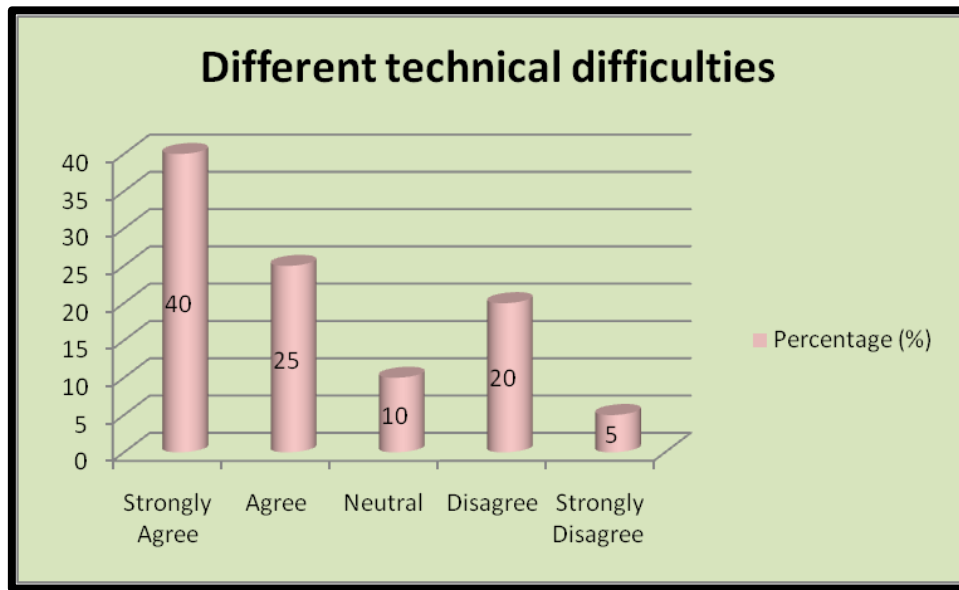


Figure 4: Discussion about the technical difficulties present in VLE

(Source: Self-Developed)

As interpreted in the above image, 40% of people have strongly agreed that there can be technical difficulties in using VLE. 25% of people have agreed to this statement as they have faced the same in using VLE. However, 10% of people have answered neutrally and 20% have disagreed that the technical difficulties can appear in the path of VLE. 5% of people have strongly disagreed with the statement.

Q5. Do you agree with the advantages of this learning method?

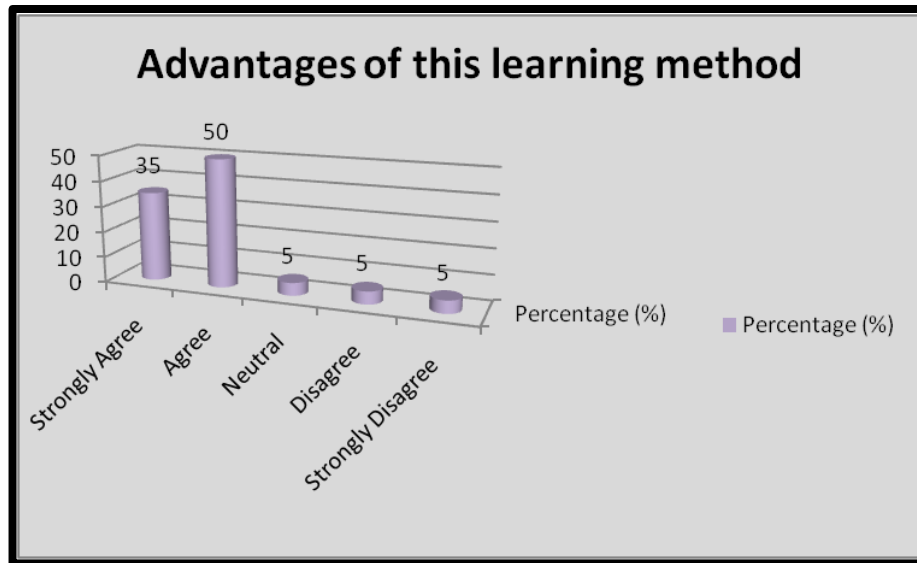


Figure 5: Discussion about the advantages of VLE

(Source: Self-Developed)

As depicted by the above image, among the 20 respondents, 35% of people have strongly agreed with this statement as they believe in the positive aspects of VLE. 50% of respondents have just agreed with the statement and 5% of the respondents have answered neutrally to the context. However, 5% of respondents disagreed and 5% of respondents disagreed with the statements as they believe there are certain drawbacks of this system.

Q6. Do you think that VLE should be applied to every university in the world?

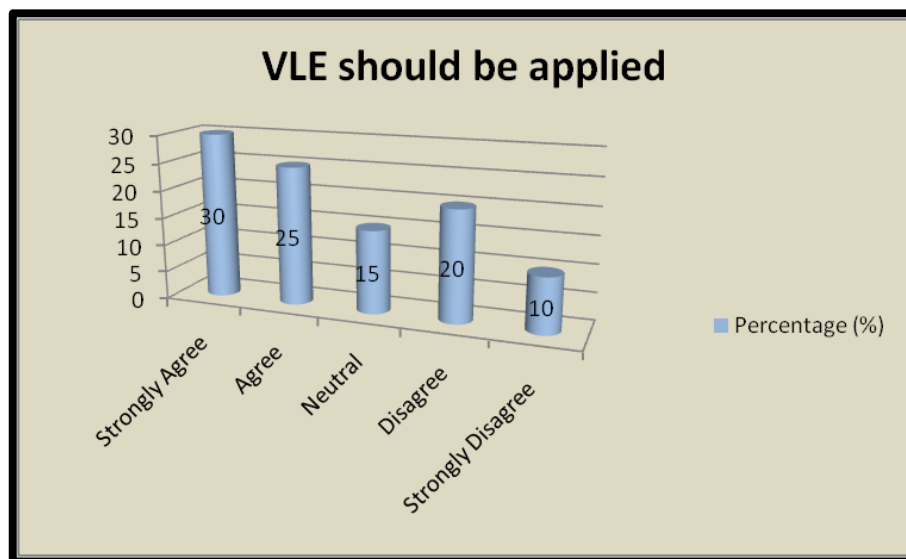


Figure 6: Discussion about the application of VLE in all the universities

(Source: Self-Developed)

As per the information in the above image, 30% of people have agreed to the global application of VLE as they believe that the betterment of education can be made with this application. 25% of people have just agreed with the global application of VLE. 15% have answered neutrally to the question. However, 20% and 10% of people have disagreed and strongly disagreed with the statement.

Q7. Do you think that VLE is too costly for every student?

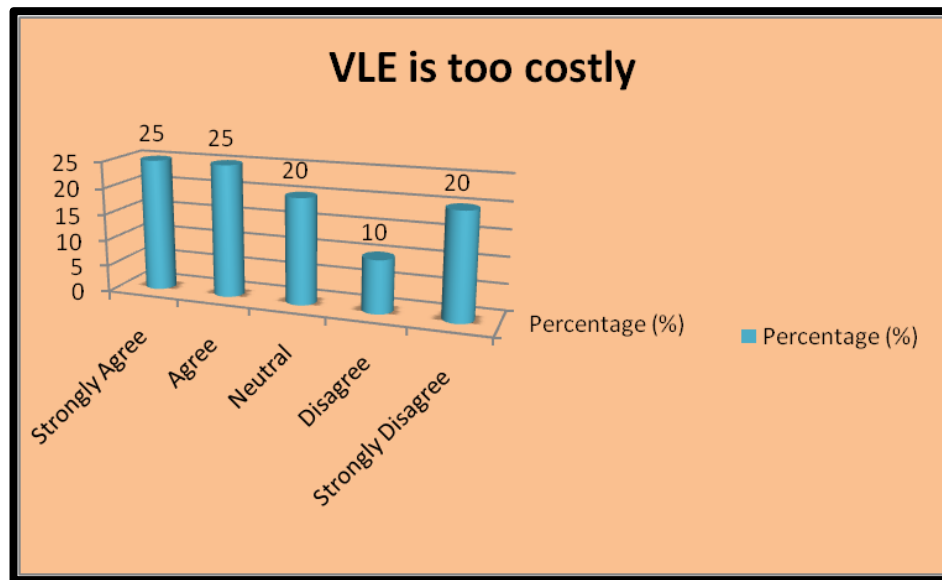


Figure 7: Discussion about the cost of VLE

(Source: Self-Developed)

As interpreted by the above image, 25% people have strongly agreed with the costliness of VLE and another 25% of people have agreed with the statement. In addition, 20% of people have responded neutrally to the statement and 10% people have disagreed with the statement and 20% people have strongly disagreed with the statement.

Q8. Do you know VLE affects the quality of learning due to a lack of human touch?

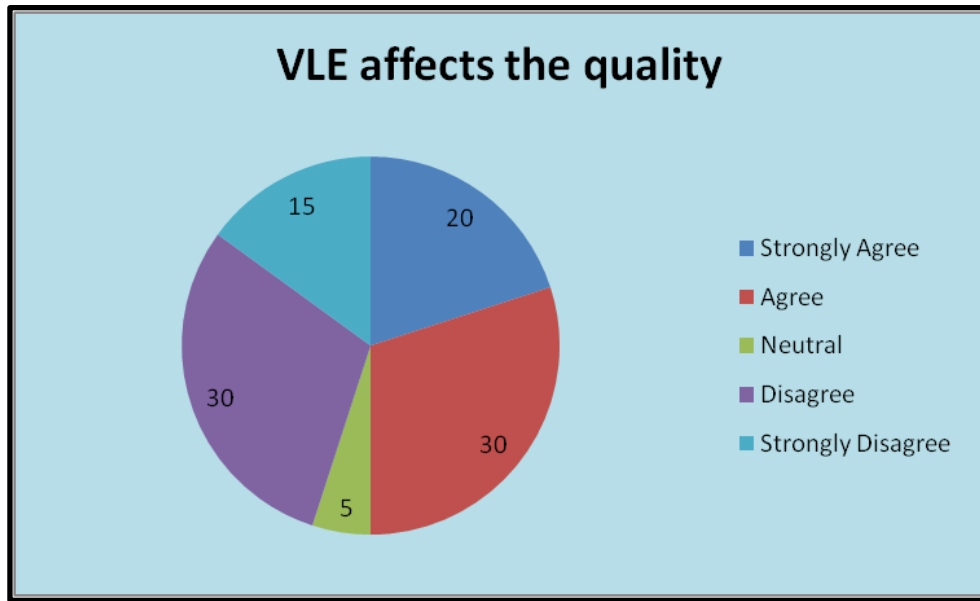


Figure 8: Discussion about affecting the education quality in VLE

(Source: Self-Developed)

As per the interpretation of the above image, 30% of people have strongly agreed with the statement that VLE affects the quality of education by not providing the human touch. In addition, 30% of respondents agreed with the statement and 5% responded neutrally. However, 30% of respondents have disagreed with the statement and 15% have strongly disagreed.

Secondary data findings

Theme 1: “The lack of human-to-human contact is a major issue of the Virtual Learning Environment”

Generally, the process of teaching and learning takes place in schools, colleges and universities. The physical presence of the teacher and students was the primary need in the traditional education process. However, the evolution of technology in recent years has also contributed to the electronic process of education (Gillett-Swan, 2017). The electrified system of education has helped in developing the virtual learning environment. This platform allows the teacher and student not to be physically present at the same place to obtain learning. In addition, this particular system also allows one student to get an education from the teacher who is at another corner of the globe.

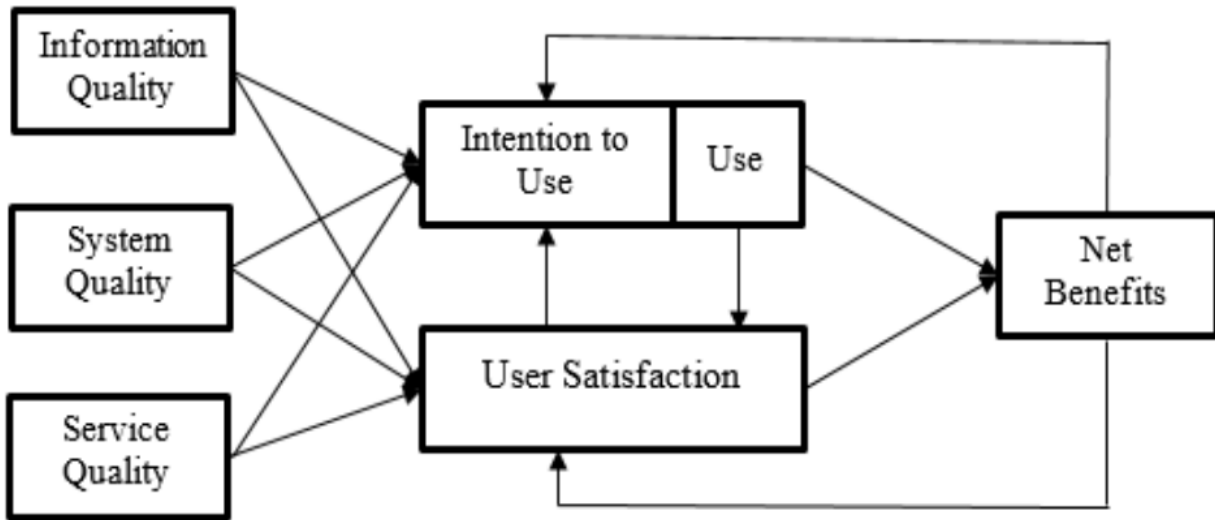


Figure 9: Model of VLE tool in Universities

(Source: Awang *et al.* 2018)

However, there are certain problems related to the use of this platform. The main issue is the **absence of human beings**. The effective learning process requires clear communication of all the problems and learning gathered from the classroom. The human presence of the teacher and the student also helps the concentration to be proper (Xinran, 2020). In addition, the teacher is the **friend, philosopher and guide** of a student, but in virtual learning, the teacher remains confined only to the screen of a digital device. Analysing from this perspective, it can be stated that the problem of Virtual learning Environment centres on the communication gap between the teacher and students.

Theme 2: “VLEs create motivating, self-learning experiences for students, which is essential for effective teaching in University of Wales Trinity Saint David London Campus”

The process of **Virtual learning** is itself creative in nature. The traditional practices of education only allowed teachers and students to be present in a classroom for the effective completion of the learning process (Huang *et al.* 2019). The technological development allows the students and teachers to be free from the boundary of the classroom and enjoy the education outside the classroom. During the process of online education, the teachers of the University of Wales Trinity Saint David London Campus also suggest online materials. The range of online materials includes e-books, PDFs and youtube videos. These materials can be utilised in creative ways as the visual contents experiments with several factors (Costa *et al.* 2020). The traditional practice of education did not allow experiments outside the laboratory. The implementation of VLE in

University of Wales Trinity Saint David London Campus helps the student to make experiments. The experimental content allows the student to implement the skills to be implemented with the creativity of the student.

Theme 3: “Effects of DeLone & McLean IS Success Model in Evaluating Knowledge Transfer in a Virtual Learning Environment”

The implementation of the **DeLone & McLean model** can help to resolve the issues related to the context of VLE, which they are able to maintain better knowledge transfer. The success of the IS model has positively contributed to the development of the VLE in universities (Awang *et al.* 2018). The combination of the individual and the organisational impacts in a single dimension is also known as **Net benefits**, which create an effective relationship between people, processes, memories and products related with universities. The update of the D & M model refers to a better understanding of the success of the **information system** understanding. However, the success of the D & M model needs to be tested after the successful implementation of the model under investigation (Aldholay *et al.* 2018).

Discussion

The result and findings of the report were executed by conducting primary and secondary research about effects of VLE in universities. The primary research has intensified the detail of the information to gather the viewpoints of the different respondents (Sovacool *et al.* 2020). 20 respondents were asked about the effects, application, advantages and technical difficulty that are caused by VLE. The primary research was completed by conducting a survey, and most of the people belonged to the age group of 20-25 years. The survey also tested the knowledge of the respondents about the availability of the different devices for accessing VLE (Herrera, 2017). The respondents also answered on facing different issues in using VLE. In addition, most of the people also agreed on the fact that there are technical difficulties that can appear at the time of using the VLE and can hamper the study.

In spite of agreeing over having difficulties and technical issues, most of the people strongly agreed over the fact that VLE must need to be implemented across the globe. The advantages of VLE is an admitted fact, this is the reason for the widespread usability of VLE across the globe (Al-Azawei and Al-Masoudy, 2020). However, the cost and the lack of human touch has still remained as an issue of VLE in successful implementation. The secondary research conducted in this report focuses on the applicability of the VLE in the educational process. The application of

VLE being an electrical process prevents the human touch in education (Phungsuk, 2017). The physical absence of the teacher and student in a single place affects the communication between them. However, VLE also helps the students to generate self-learning capacity by including creative content for study. The implementation of the D&M model also helps to make VLE more effective.

Conclusion

It can be concluded from the study that VLE is an important medium for study in this contemporary age. VLE has certain positive and negative effects on the entire education. However, the implementation of VLE has been found as the most important process to deal with the difficulties of education. VLE can help the student to access the study material outside the classroom and also it helps to develop self learning and creative skills to be developed.

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Appendices

Appendix 1: Survey questionnaire

Q1. What is the age group you belong to?

Age	Percentage (%)	Total participants	No. of Respondents
20- 25	40	20	8
26- 30	25	20	6
31- 35	10	20	4
above 35	20	20	2

Q2. Do you know there are different types of devices present related to VLE?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	35	20	7
Agree	50	20	10
Neutral	5	20	1
Disagree	10	20	2
Strongly Disagree	0	20	0

Q3. Do you know there are various issues you can face while using the equipment?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	20	20	4
Agree	50	20	10
Neutral	5	20	1
Disagree	25	20	5
Strongly Disagree	0	20	0

Q4. Do you know there are different technical difficulties in using the devices?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	40	20	8
Agree	25	20	5
Neutral	10	20	2
Disagree	20	20	4

Strongly Disagree	5	20	1
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Q5. Do you agree with the advantages of this learning method?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	35	20	7
Agree	50	20	10
Neutral	5	20	1
Disagree	5	20	1
Strongly Disagree	5	20	0

Q6. Do you think that VLE should be applied to every university in the world?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	30	20	5
Agree	25	20	8
Neutral	15	20	1

Disagree	20	20	4
Strongly Disagree	10	20	2

Q7. Do you think that VLE is too costly for every student?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	25	20	2
Agree	25	20	5
Neutral	20	20	4
Disagree	10	20	5
Strongly Disagree	20	20	4

Q8. Do you know VLE affects the quality of learning due to lack of human touch?

Responses	Percentage (%)	Total participants	No. of Respondents
Strongly Agree	20	20	4
Agree	30	20	6
Neutral	5	20	1

Disagree	30	20	6
Strongly Disagree	15	20	3