

Digital skills and Research Methods

Report

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Abstract

In this modern world, VLE plays a very important role in Education. In my report I'm focused to analyse online and offline students' questionnaire (survey). My main purpose is to understand the impact of VLE especial Moodle in students' life and how VLE improve students' satisfaction. I investigate a total of 20 students' response which will help me to understand the student opinion. The student group taught using the VLE has higher scores when they were asked if they like Moodle and how helpful is for students from our university this platform.

Also, based on two research questions about the impact of using Moodle as an E-Learning tool for students, can be deducted that VLE only can improve students learning in a positive way and motivated it to achieve more.

Key words: VLE, Moodle, impact, research, platform, questionnaire.

Introduction

VLE is an online platform designed to improve the quality of student learning. Software that teachers and students can use to communicate with each other online. You can use it anytime, anywhere. Teachers can create discussion forums where we can discuss our problems and learn about assignments, deadlines, and more. Classroom information, instructional materials, and assignments are typically provided to students via the Internet. Teachers can communicate with us via video or web conferencing.

Our university uses Moodle platform and Microsoft team to communicate with us.

In the present era, Moodle act as a suitable virtual learning environment for students, developing the learning culture and experience with advanced Information and communication technology. Moodle motivates the students to actively participate in learning activities (Siirak, 2008). Moodle it's the best way to help students in their study regularly. This increases the efficiency of transferring knowledge to students using virtual media.

Aim of the report

The report aims to highlight the impact of the virtual learning environment, especial Moodle in UWTSD institution.

Rationale

The research is to be done so that the change in the educational system which is to be applied in workplaces is brought into the limelight. Therefore, in this assessment, a strict analysis of the overall educational system through the virtual medium is to be highlighted. Apart from the positive and negative impact, there has been a range of challenges that are to be highlighted accordingly. The growth of technology is also one of the key features that can be highlighted in this aspect.

Objectives

The objectives of this research are:

- To understand the importance of VLE(Moodle)
- To investigate the impact of using Moodle as an E-learning tool
- To understand the role of virtual learning in UWTSD university

Research questions

Q1. Does Moodle improve the achievement of ELI students?

Q2. What is the influence of using Moodle on students' performance, knowledge, and collaboration with other students?

Literature Review

The literature review would be an analysis of the subject in a different manner. Primary and secondary data analysis are going to be done which will help to bring out the success of the VLE.

Literature recommends that integrating the use of Moodle or any software that can be accessed using a computer combined with an online or network connection can be an effective way of delivering courses, topics, assignments, projects, among other things that teachers most frequently use as course materials in an exceedingly traditional educational system.

Methodology

Background of data

The data that has been collected is from trusted sources. All the data discusses the impact of virtual learning. The environment of virtual learning is being identified to be an important part that aims to develop the requirement of digital education.

Sources of data

The sources of data are collected from published sources. The real-time data is identified and applied in the assessment. This is an important part that helps to bring in the analysis according to the topic. The research topic that has been selected aims at understanding the topic and applying it accordingly to the research. The data analysis methodology is an area of potential limitation (Theofanidis and Fountouki, 2018).

Research Design

The research design that has been highlighted is descriptive research. Descriptive research helps to describe the characteristics of the variables under study. The research design of descriptive research is part of quantitative research analysis.

Sampling technique

The sampling technique that has been used is 20 students. Here, the data has been collected from 20 students regarding their experience and virtual learning environment. The support of a virtual learning environment helps to improve in a positive way the students learning. With the help of the sampling technique, the quantitative analysis of primary data analysis is done. The thematic analysis of secondary analysis is also done that helps to understand the key elements of the topic. The data sampling strategies are to be selected in such a manner that helps to yield rich information which is consistent with the methodological approach (Moser and Korstjens, 2018).

Ethical statement

During the whole assessment of research, no data is being taken from the journals without prior permission. All the students (samples) were not forced to answer questions apart from their perspectives. No data was altered during the preparation of this research.

Data collection tools

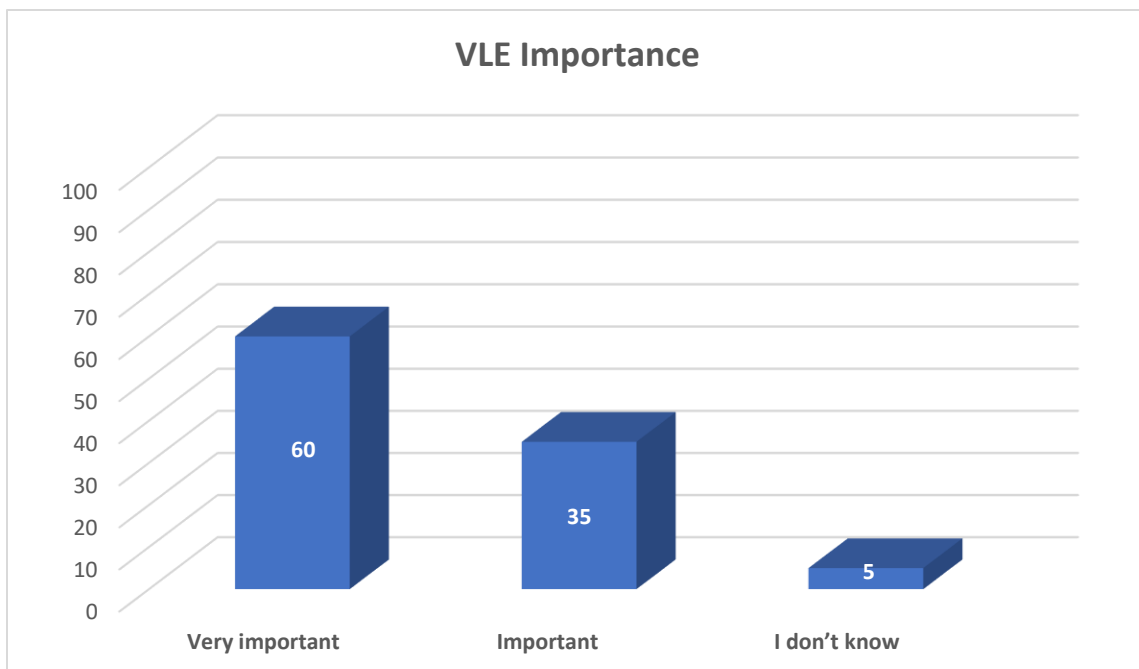
To evaluate the impact of VLE, especial Moodle in student's learning I used questionnaire method.

Primary data analysis

Using a questionnaire containing 10 questions, a survey has been conducted among the 20 students online and offline of UWTSD, the responses are tabulated below along with graphical representation.

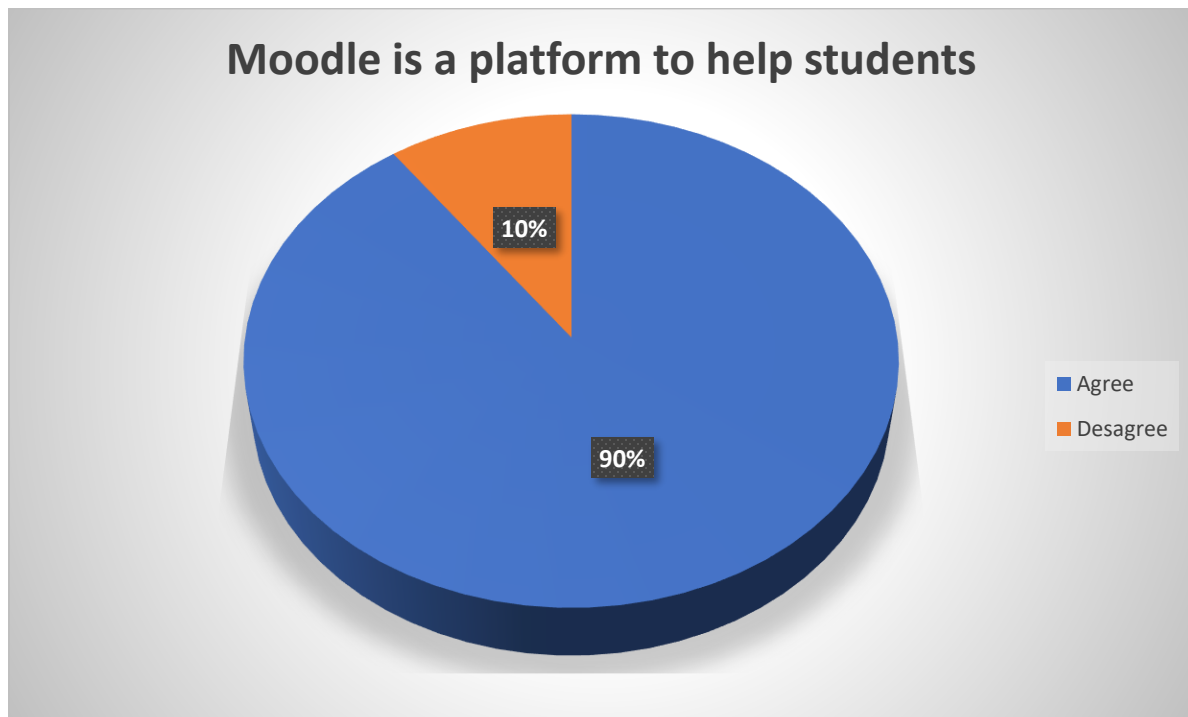
Question 1: What is the importance of VLE in our life?

Choices	Percentage of respondents	Total respondents
Very Important	60%	20
Important	35%	20
I don't Know	5%	20



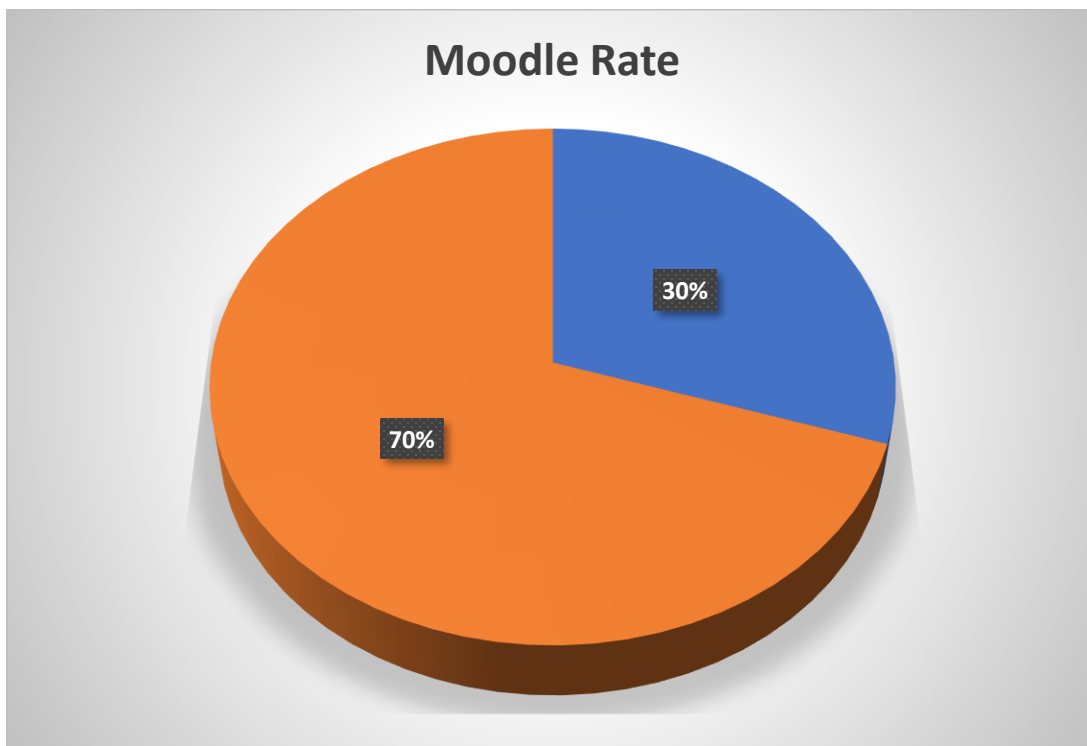
Question 2: Moodle is a platform to help students in their learning?

Choices	Percentage of respondents	Total respondents
Agree	90%	20
Disagree	10%	20



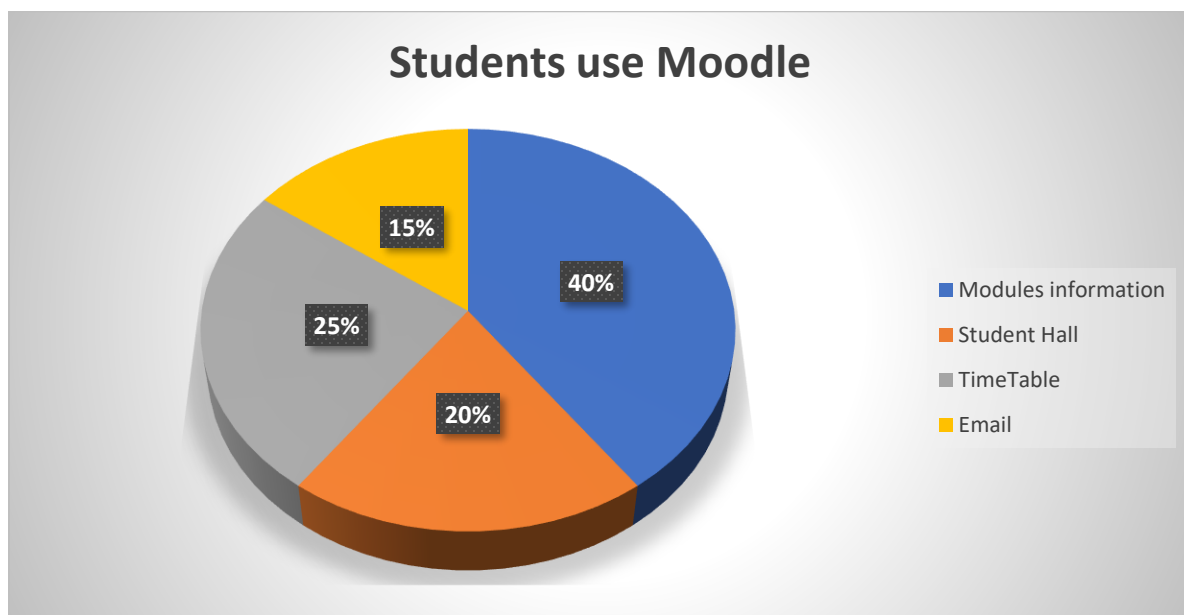
Question 3: How do you rate Moodle in VLE?

Choices	Percentage of respondents	Total respondents
0-5	30%	20
5-10	70%	20



Question 4: What is the main reason for using Moodle?

Choices	Percentage of respondents	Total respondents
Modules Information	40%	20
Students Hall	20%	20
Timetable	25%	20
Chat	15%	20



Questions 5,6,7: Moodle access, if the students like Moodle and how many hours per day they spent using Moodle.

Ref No	Moodle Access	Do you like Moodle	Hours per day
1	Easy	Yes	1
2	Very easy	No	1
3	Easy	Yes	3
4	Easy	Yes	1
5	Very easy	Not sure	2
6	Easy	Yes	3
7	Very easy	Yes	2
8	Easy	Yes	1
9	Very easy	Not sure	1
10	Easy	Yes	2
11	Very easy	Yes	1
12	Easy	Not sure	2
13	Easy	Yes	2
14	Very easy	Yes	2
15	Easy	Yes	2
16	Very easy	Yes	1
17	Easy	No	1
18	Easy	Yes	2
19	Very easy	Yes	1
20	Easy	Yes	2

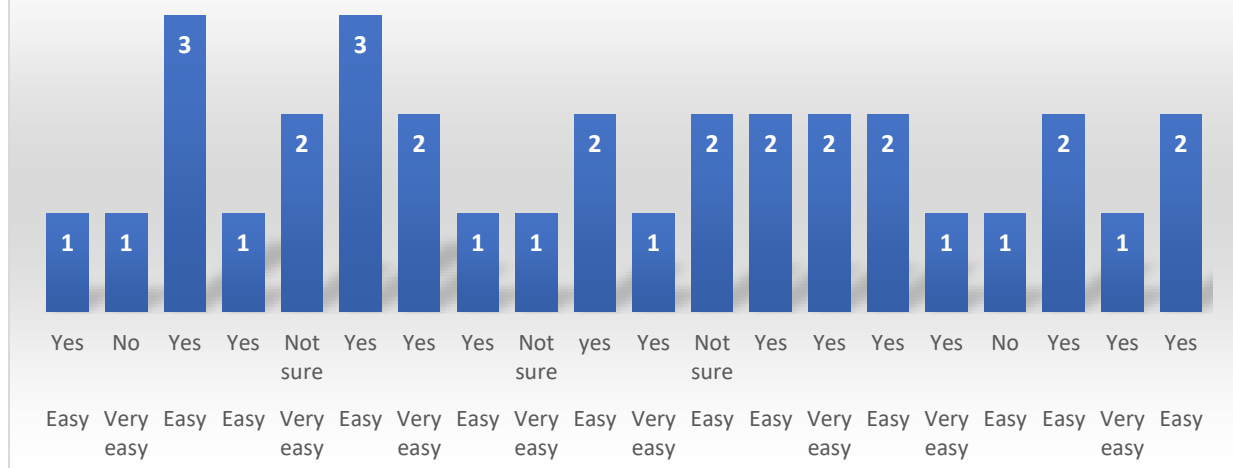
Data Analyses for Academic Research

Reference No is a 2-digit reference code, unique for each student.

Hours per day are coded:

0-1 hours=1, 1-2 hours=2, 2-3 hours=3.

MODDLE use per hours



Question 8: What was your experience using Moodle?

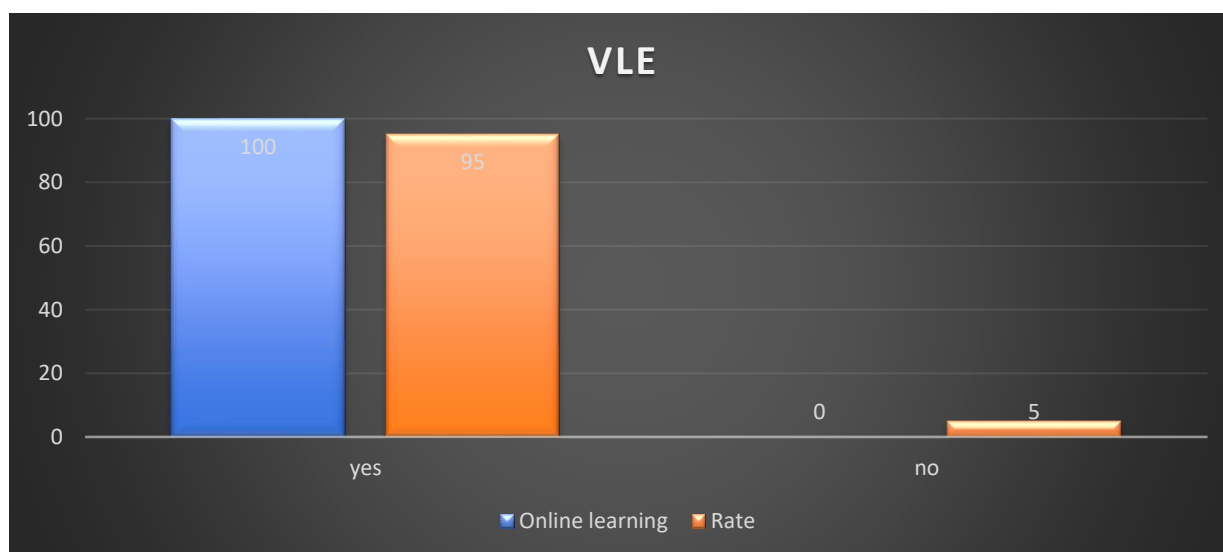
Choices	Number of respondents	Total respondents
Excellent	6	20
Good	12	20
Awful	2	20



Question 9,10: In your opinion, online learning is helpful for students, will you recommend Moodle to your friends?

Choices	Number of respondents	Total respondents
Yes	100%	20
No	0%	20

Rate: 0-5=5, 5-10=95



Discussion and analysis

Analysing the above tables and graphs of 20 respondents in total it can be deduced that 95% of response says that VLE are very important or important part in a student's life. Also 90% of the total respondents are strongly agree with the fact that Moodle is a platform to help students in their learning and just 10 % was disagree. More than half, 70% rate Moodle in VLE 5-10 points and less than 50 %, rate it with 0-5 that means Moodle has more positive impact than negative and improve its learning. The main reason why the students use Moodle is: Modules information with 40%, 20 % use it for Student Hall, 25% for Timetable and 15% for email. Students find Moodle easy or very easy to

access, moreover 15 of 20 students said that they like Moodle, 3 students are not sure, and 2 students don't like it at all. The interval of hours spent in Moodle is 9 students said 0-1h, another 8 said 1-2h and 2 students 2-3 hours per day. Student's experience using Moodle was excellent for 6 students, good for 12 students and awful for 2 of them. When the students were asked if online learning is helpful and if they will recommend Moodle to their friends, 100% of respondents said yes, just 1 student rate it 0-5, but 19 marks it with 5-10 points. From this analysis it is very clear the student opinion and how important is VLE especial Moodle for them.

Secondary Data analysis

A study by Bryant (2010) compared Moodle with Blackboard in learning, the researchers implemented Moodle as a tool in learning management for Otago Polytechnic University instead of the Blackboard and teacher, students notice the difference. A variety of 20 students were surveyed to collect feedback and make conclusions. Most of the students had positive feedback about using Moodle and would really like to use it over Blackboard if given the selection.

Despotović-Zrakić et al. (2012) investigated the difference in LMS courses, the researchers were focused to compare the effectiveness of e-education delivered in adaptive to those in non-adaptive manner. Students were assigned to two groups and therefore the courses were delivered. The study results showed a remarkable student's achievement in an adaptive manner with the assistance of Moodle.

Research by Siirak (2008), shows the positive attitude of students towards the VLE provided through Moodle as it became feasible for them to assess learning materials and participate in other activities all in a single platform. It has also been reported that Moodle helped to become disciplined and has built the enthusiasm for classroom activities. Filling assignments have become easy for students after the integration of Moodle in VLE which makes students more satisfied with the learning process.

The concept of virtual learning is considered to have a strong impact on the participants. During the covid time, virtual learning has taken up its pace. Cesar Torres martin, et al (2021) states that organizations have started to teach digitally. It has included technology in a methodical adaptation. The process of collecting information was an online questionnaire using the simple random sampling process. This is carried out with the

support of proportionate affixing. There was the implementation of active methodologies due to the virtual condition. This is one of the ideas that has been identified to create a generalized discomfort among the students. This was due to the new concept that was being faced by the students. Therefore, the virtual learning environment however has helped in the covid situation to carry forward the education in a hassle-free manner.

Findings

As per the primary and secondary analysis, it can be deduced that the use of Moodle on online learning platforms is helpful. In the quantitative analysis, the importance of Moodle has been highlighted and along with it, the query for recommendation is also positively responded to. This is an important part that has been able to support the research towards a positive goal. Moreover, with the support of thematic analysis, the importance of online distance learning is encouraged. At some points, online distance learning is not considered to be easy for students. It is because of new ideas that are not common. Since March 2020 it has been identified that the life of the people was stabilized in the terms of education with online support (de Oliveira Dias et al., 2020). Otherwise, the role of virtual learning has been able to enhance the quality of life among people.

Conclusion

The research is done by undertaking a response from 20 students from the university. The impact or the environment of virtual learning has been a vital part of the educational process. At some stages, there have been issues with the changing environment. With the support of quantitative and thematic analysis, online educational support can be helpful and can improve a quality of learning.

In alliance with it, it can be helpful to build a better research paper and derive more effective conclusions.

Recommendation

The research that has been conducted, could have been done in a better manner. These are some of the points of recommendation. They are

- It is advised that the time is managed properly.
- The resources should have been properly researched for better and intense ideas to support the research.

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Appendix

In-Class exercise: Questionnaire Design

Student Name: Maria Mahu Student ID: 2115144

Module Name: Digital Skills and Research Methods Term 2 Group: 4

Aim: This exercise is aimed to help you in your questionnaire design. Please note, you need to use this questionnaire to conduct a survey which is also one of the important parts of your research report.

Question 1: What is the importance of VLE in our life?

Very important

Important

I don't know

Question 2: Moodle is a platform to help students in their learning?

Agree

Disagree

Question 3: How do you rate Moodle in VLE?

1	2	3	4	5	6	7	8	9	10
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Question 4: What is the main reason for uses Moodle?

Module's information

Student Hall

Timetable

Email

Question 5: Did you find Moodle easy to access or no?

Very easy

Easy

Question 6: Do you like Moodle?

Yes

No

Not sure

Question 7: How many hours per day do you use Moodle?

1-2

3-4

Question 8: What was your experience using Moodle?

Excellent

Good

Awful

Question 9: In your opinion, online learning is helpful for students?

Yes

No

If yes, rate your answer

1	2	3	4	5	6	7	8	9	10
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Question 10: Will you recommend friends to use Moodle in their learning?

Yes

No

If no, please explain

Thank you!