



DIGITAL SKILLS AND RESEARCH METHODS

BMSW 4003

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ABSTRACT

The advancement of technology has changed the traditional learning approach to virtual learning structure. Due to the changes in education method, the use of technology performs vital responsibility to facilitate learning program that help students to get fully engaged on it. Recently, due to COVID-19 pandemic situation, the use of online learning grow faster than before, therefore, the educational institutions introduced advanced technology to their education facilities such as Learning Management System (LMS) and Virtual Learning Environment (VLE) to deliver wide range of information and material to their learners. The VLE, such as Moodle, Blackboard, and WebCT, is an online learning platform which allows teachers to share educational resources with their students through the web. Hence, this is a lead both learners and instructors to interact with each other regardless of their time or place. This paper demonstrates the impact of Virtual Learning Environment through a survey, that will include previous literature reviews, the responses of the questionnaires and the result of the finding about the virtual learning

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1. Virtual Learning environment (VLE)

VLEs is an educational apparatus aimed to develop a learner's education skill through the Internet and computer. This mechanism can either be applied in teaching a full virtual lesson or as supporting aspect for in-personal courses. VLE offer technique to organize the learning and teaching skill, interconnect learning skills expectation, and enable learners to participate in the learning. With the help of virtual learning, the users (teacher and student) are given Identification (ID), thus, can see the same things through learning from their Laptop, Tablet, Computer, Virtual Realty Device, or Mobile. However, only teacher can create curriculum subject and follow student performance. There are several viable virtual leaning software bundles such as Moodle, Blackboard, WebCT, and Lotus Learning Space; main goal is to improve, stimulate and deliver learning experiences further than the classroom. (Sneha & Nagaraja, 2013)

2. LITERATURE REVIEW

In 2005 the UK Government put emphasis on effective use of technology in the institutions and learning sources. Ofsted survey reported that more than half of the schools were encouraging virtual education on learning and teaching process. Hence, in 2008-9, about 92% of additional education colleges use a VLE that risen from 58% in 2003-04 (Demian and Morrice, 2012).

In 2009 Oladiran and Uziak performed study in Botswana discovered that the 75% of students' choice Blackboard over face-to-face learning in a schoolroom. They stated that the usage of Blackboard improved their IT skills and became more independent in their thought. (McKeough, 2009).

The research conducted by Potter and Johnston in 2006 suggested that students more satisfied traditional to online schoolroom system. But learners are motivated to utilize VLE because it is flexible, can be accessed at any time from anyplace and saves clip. Therefore, the VLEs practice is suitable in learning institutes, but it does not mean that it better than traditional face-to-face system. (Chattopadhyay and Sumrall, 2007)

However, some researchers suggested that students choose a blend of confront and virtual learning. Since the tutor and students using computer as a means of teaching, their relationship can turn out to be impersonal. Due to the absence of vocal expression, eye contact, and smiling, the VLEs cause learners to feel isolated, confused, anxiety and frustrated that reduced their interest in the subject matter. (Bleed, 2001). Therefore, it has been recommended that a suitable blended education, that merge virtual with face-to-face learning, can nourished learning progress.

3. RESEARCH METHODOLOGY

3.1 Questionnaire

The questionnaires sent to the respondent that required to answer based on their knowledge and experience about the topic, this method is not cost and less time consuming. But the researcher needs to be more careful on designing questions. (Maund et al,2017). A five minutes multiple choice questions were administered to the 50 respondents for responses via email and messages, only 44 responds. The questions were formulated to obtain some basic data such as age, gender, professionals, learning environment preference, and knowledge and general view about the virtual learning environments.

3.2 Sampling

Since this study is relating to obtain information about impact of the VLEs, the survey was the appropriate research design to use, because it is a suitable method of assessing and assembly ideas about a huge group of people. (Maund et al,2017)

The target group of the study consists students' (75%), employed (22.7%), that were academic staffs, and unemployed (2.3%), that were parents with children between ages 10-16, about their opinions regarding the impact of VLEs. Due to COVID-19 situation, the study was performed on a reduced number of participants; it is difficult to get participants to respond to the study. As Regards of allocation of the participating respondents' genders; 34.1% male and 65.9% female. Regarding ages, 63.6% were between 10-30 and 36. % were between 31-50+.

3.3 Data analysis

The objective of data analysis is to obtain valuable evidence after the collection of the data and taking the outcome founded upon that analysis. (Maund et al,2017). Data deliverables for this project include descriptive explanation. customised pie and column chart, excel file of the verbatim from the open-ended question

4. IMPACTS OF VIRTUAL LEARNING ENVIROMENTS

4.1 Virtual Learning Environment

The study shows 81.4% of respondents define VLE as educational means designed to develop a learner's education experience with the help of computers (Moodle) and the Internet (Teams) in the learning process.

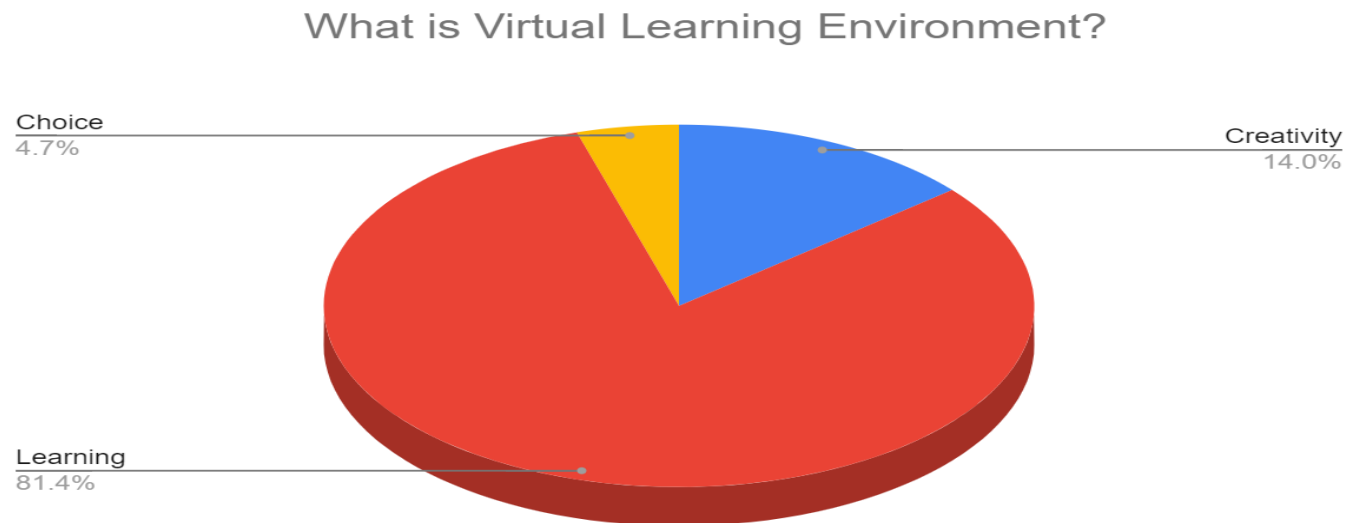


Figure 1 What is Virtual Learning Environment?

4.2 Effect of VLE in studies

About 38.6% of respondents stated that due to the nature of their studies some learners can do well on both online as well as in-personal course, but in other hand, students with bad or weak academic background do worse in the online learning. On other hand 40.9% of respondents argued Online courses might be made to work for these students on average, while 20.5% they were not sure.

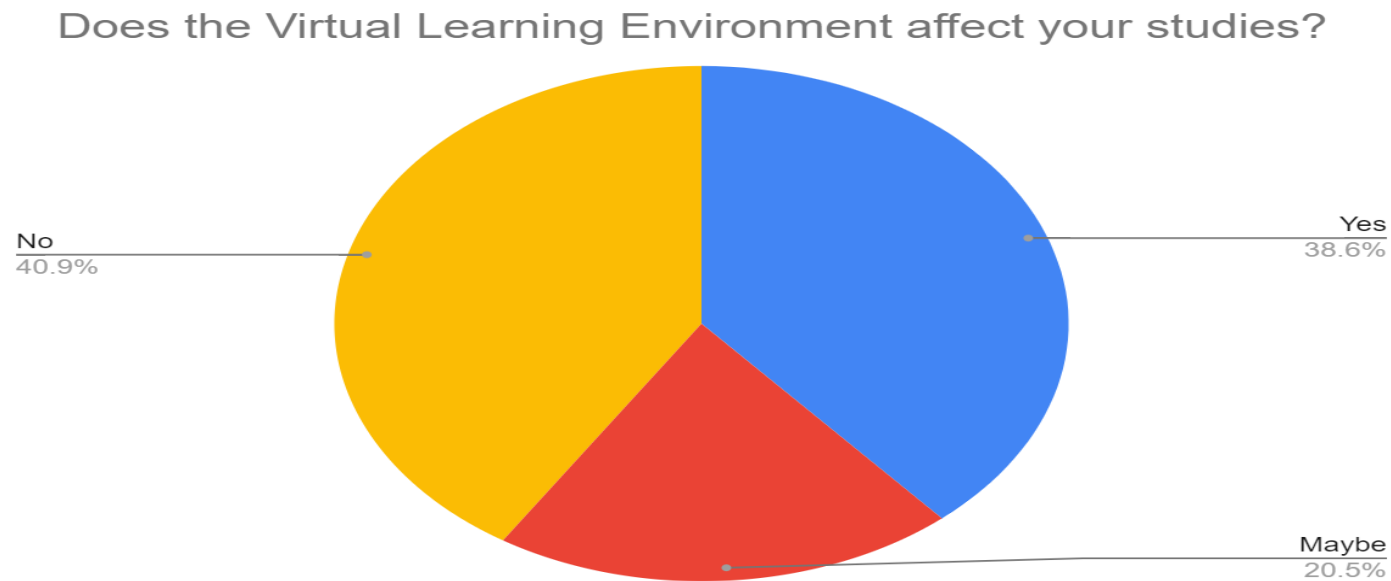


Figure 2 Does the Virtual Learning Environment affect your studies?

4.3 Accessibility

Most learners 47.7% said through Moodle they have access to the learning resources that help them to engage in their studies and continues with their other plans and activities such as having full-time job. A small (11.4%) proportion said they lack knowledge to access it respectively, while 40.9% they do not know.

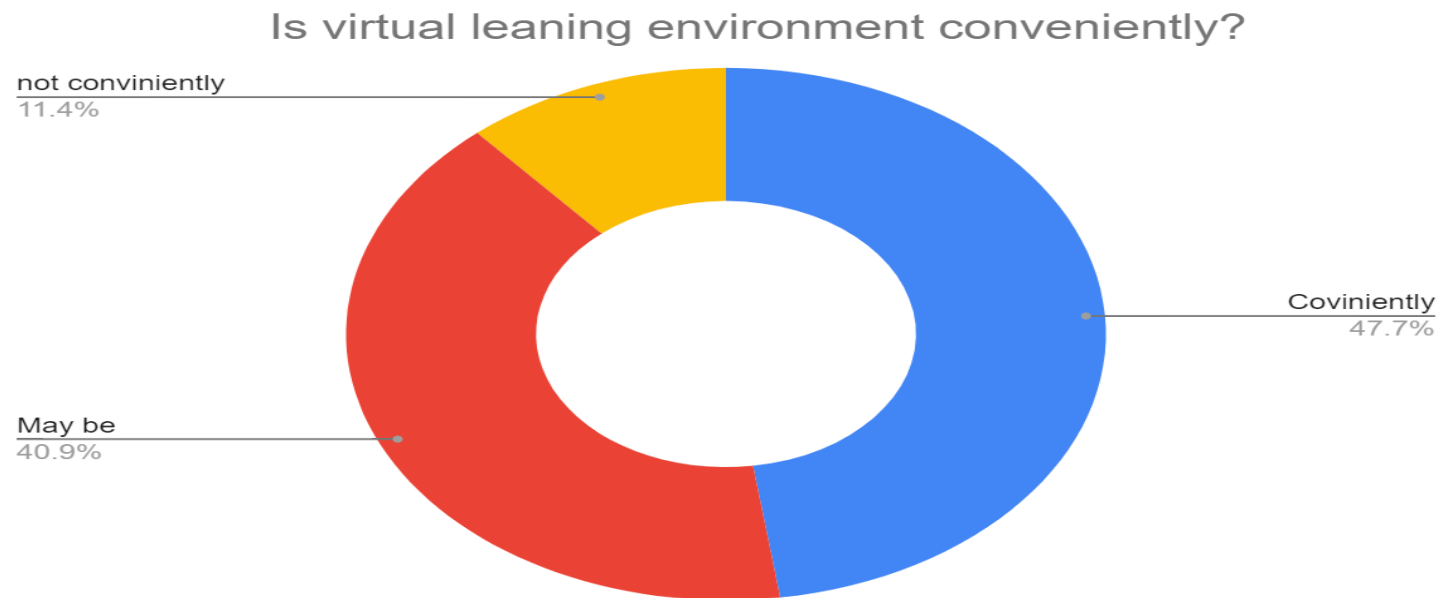


Figure 3 Is virtual leaning environment conveniently?

4.4 Virtual Learning Experience

Total 29 respondents were undertaking the virtual approaches of learning for the first time, but they found it better than traditional learning environment. Only 11 learners, out of the 44, were unsure how to use it, because the information on it was not up-to-date and that they kept on forgetting their log in details. Nevertheless, 4 of them were not preferred to share their experience.

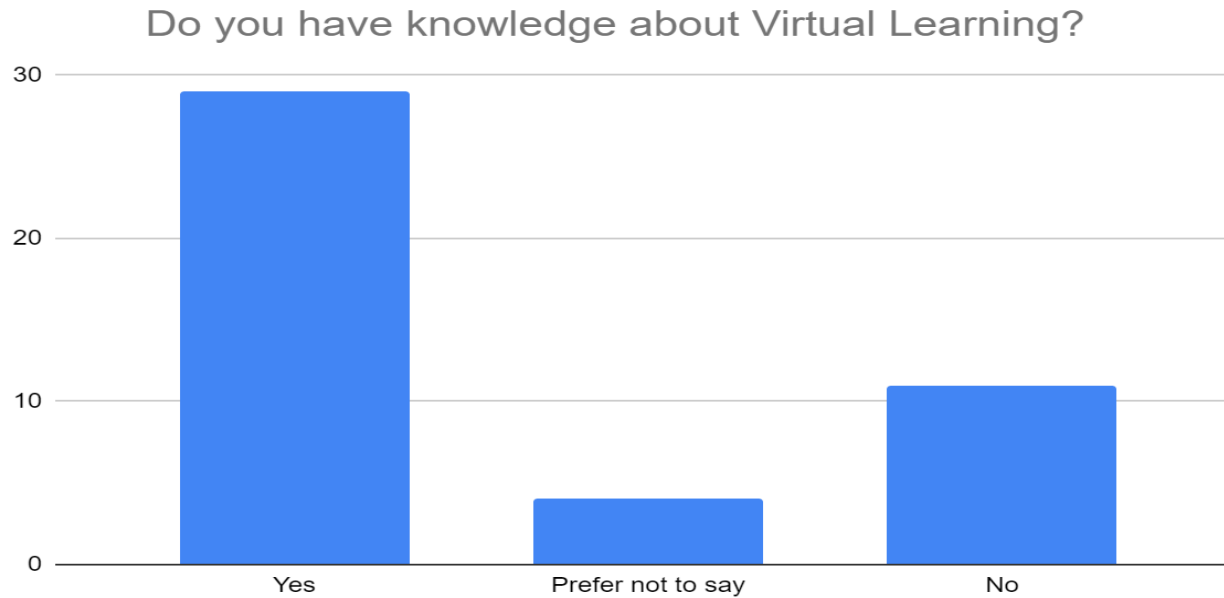


Figure 4 Do you have knowledge about Virtual Learning?

4.5 Sincerity of Virtual learning to eLearning systems

According to 43.2% y responses indicated that the educational provider established online learning system which allow them to participate and influence their learning at home. However, 20.5% responses said that the education provider failed to improve high-quality online teaching and new interaction with both internal IT operations and external tech suppliers. And 36.4% they were not sure because their participated on virtual learning.

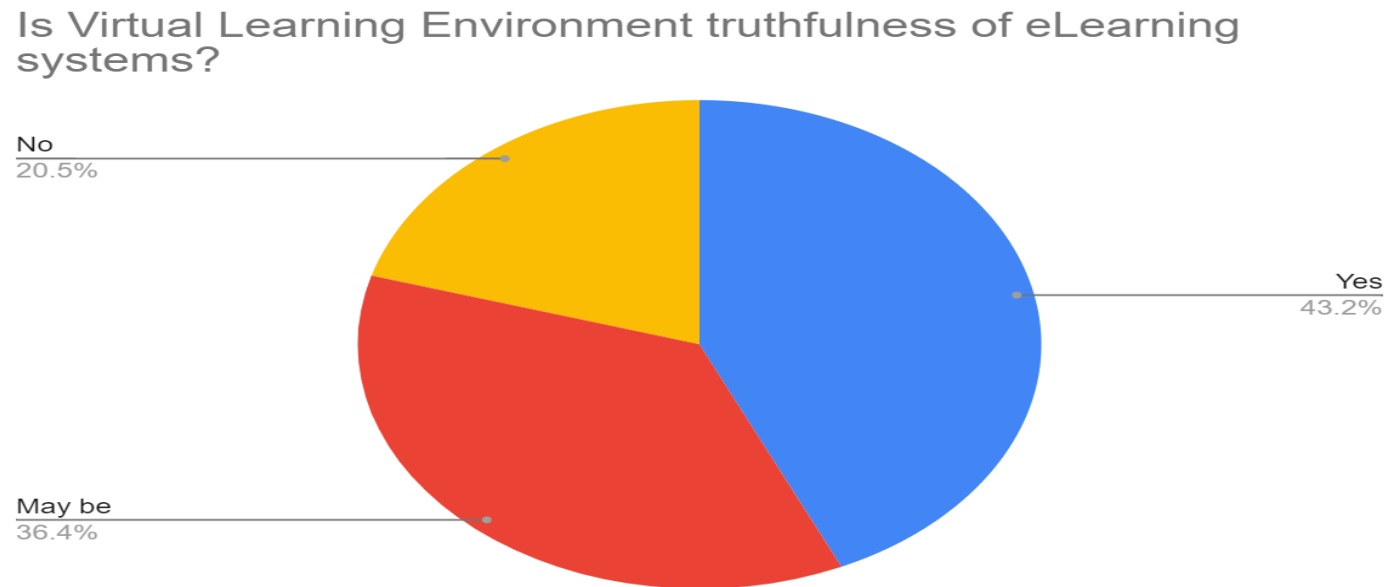


Figure 5 Is Virtual Learning Environment truthfulness of eLearning systems?

4.6 Virtual learning in education setting

Many learners (81.8%) said that they use VLE for studying and submitting assignments. Interestingly 13.6% said they did not have VLE on their education setting and argued they would not use a VLE even if their course used one. And 4.5% preferred not to share their information.

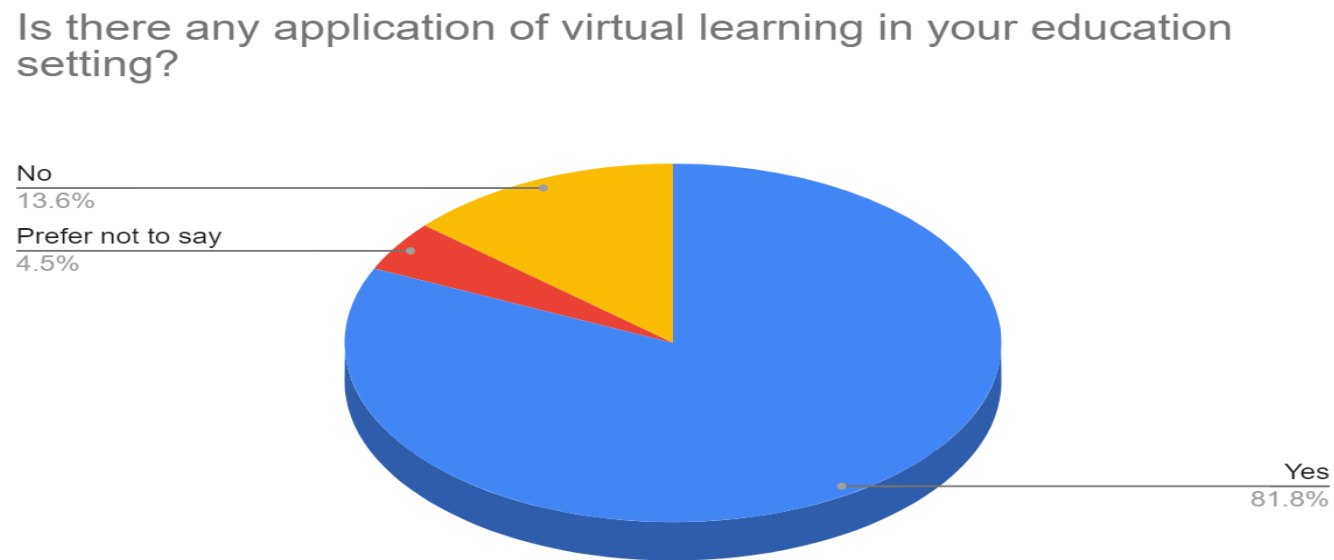


Figure 6 Is there any application of virtual learning in your education setting?

4.7 Virtual learning in higher education context

In view of 31.8% respondents virtual learning can be part of the learning process and not a substitute for it. However, about 61.4% participant argued that, because the whole world is moving to digitized, face-to-face learning may not be as effective as VLE especially at the higher education level. While small number (6.8%) they were neutral.

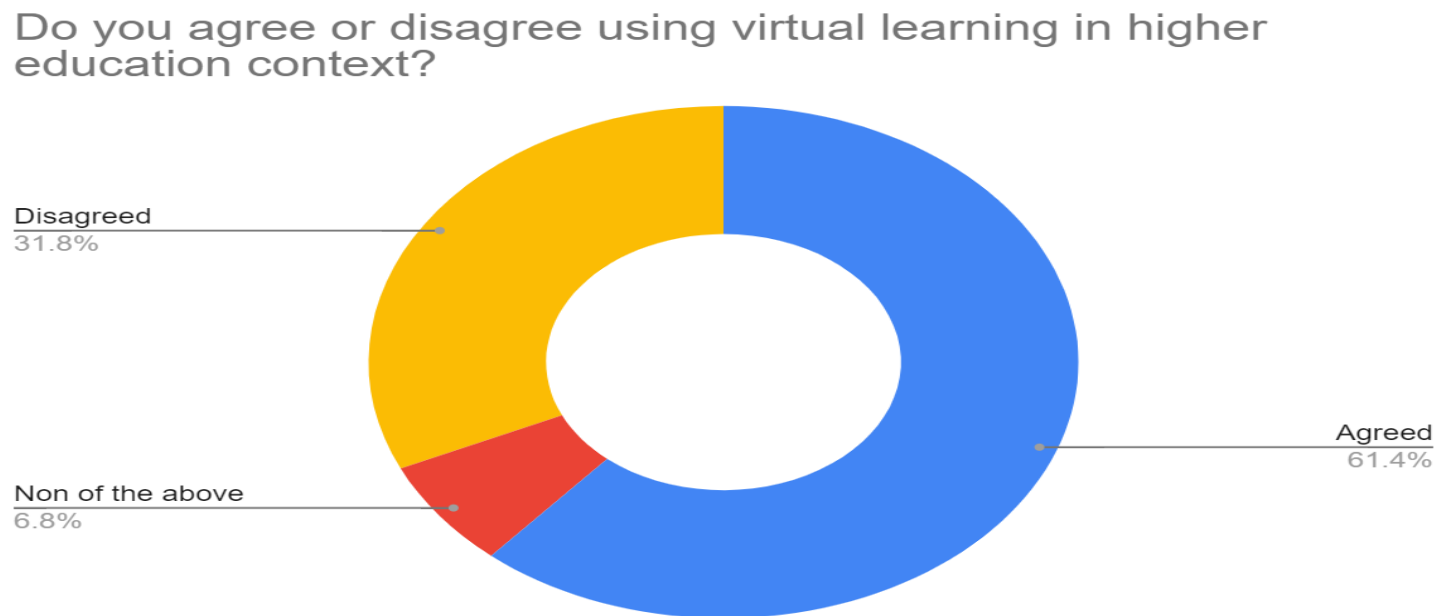


Figure 7 Do you agree or disagree using virtual learning in higher education context?

4.8 Opinions about Virtual Learning Environment

The study indicated 15 responses out of 44 stated that lecture notes, tutorials, and some discussion are handled and executed through a form of Moodle Learning Management Software. On other hand, 27 responses indicated that in VLEs students still yearn for interaction with their fellow students, even if they see each other. Minority of 2 they did not have any opinion of the topic.

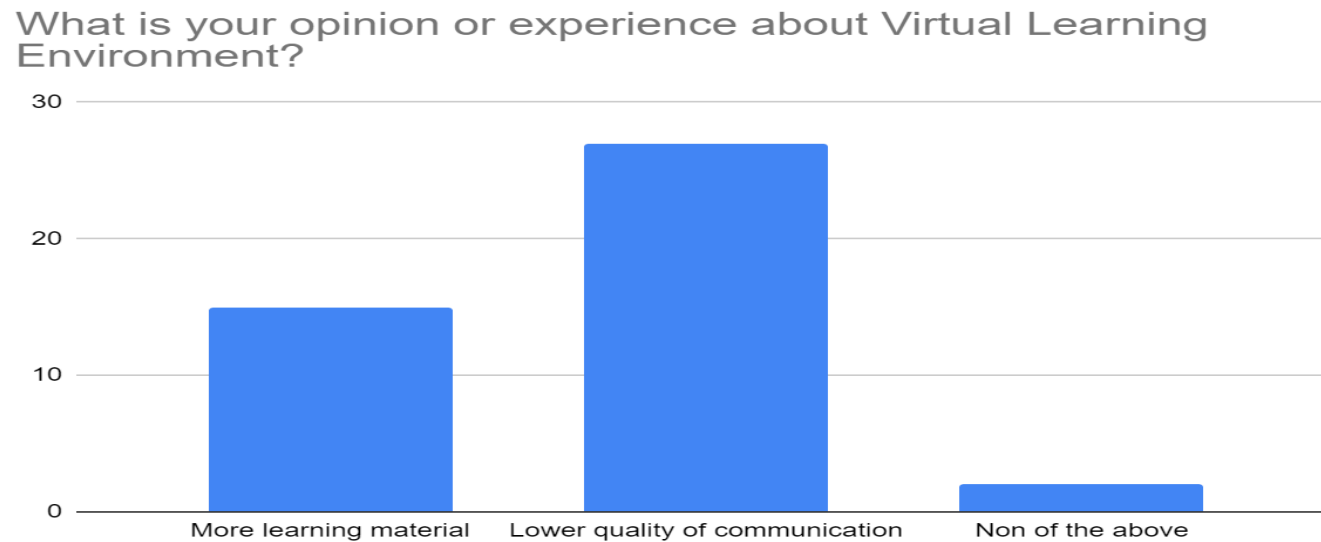


Figure 8 What is your opinion or experience about Virtual Learning Environment?

4.9 Motivation

Almost half of the responses (40.9%) stated that due to virtual learning setting the students may have more distractions and less oversight, which can reduce their motivation, that make them difficult to focused on study. However, 31.8% argue that VLE has provided opportunity to do things without supervision. And surprisingly 27.3% were not sure if they were motivated or not.

Does Virtual Learning Environment motivate student and academic staff?

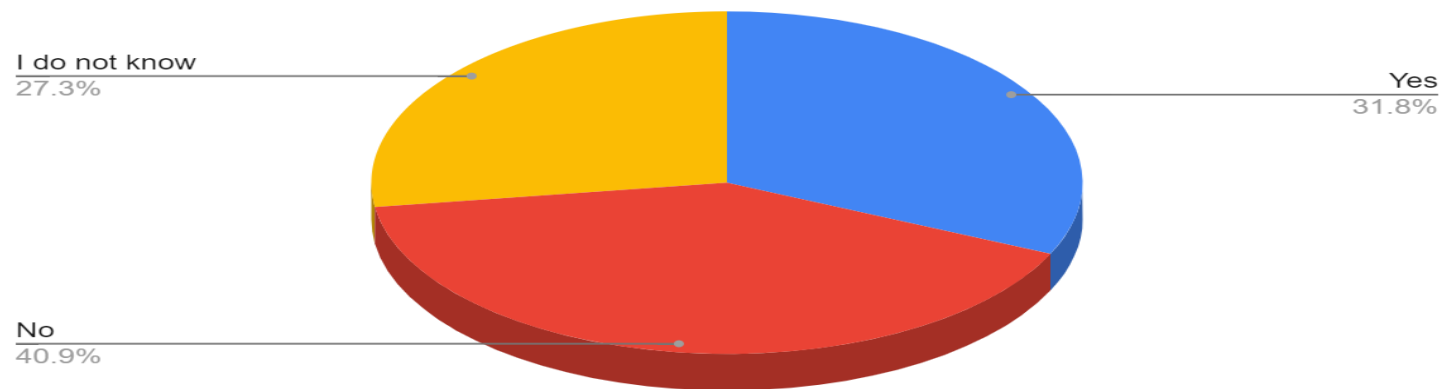


Figure 9 Does Virtual Learning Environment motivate student and academic staff?

4.10 Expression of complex ideas

Most of the responses (41.9%) claimed that transferring complex knowledge that would normally teach in face-to-face environment to a virtual learning environment is very challenging especially in some perspective such as art. And 27.9 % believed pictures and video can convey the complex ideal. On other hand 30.2% they did not know,

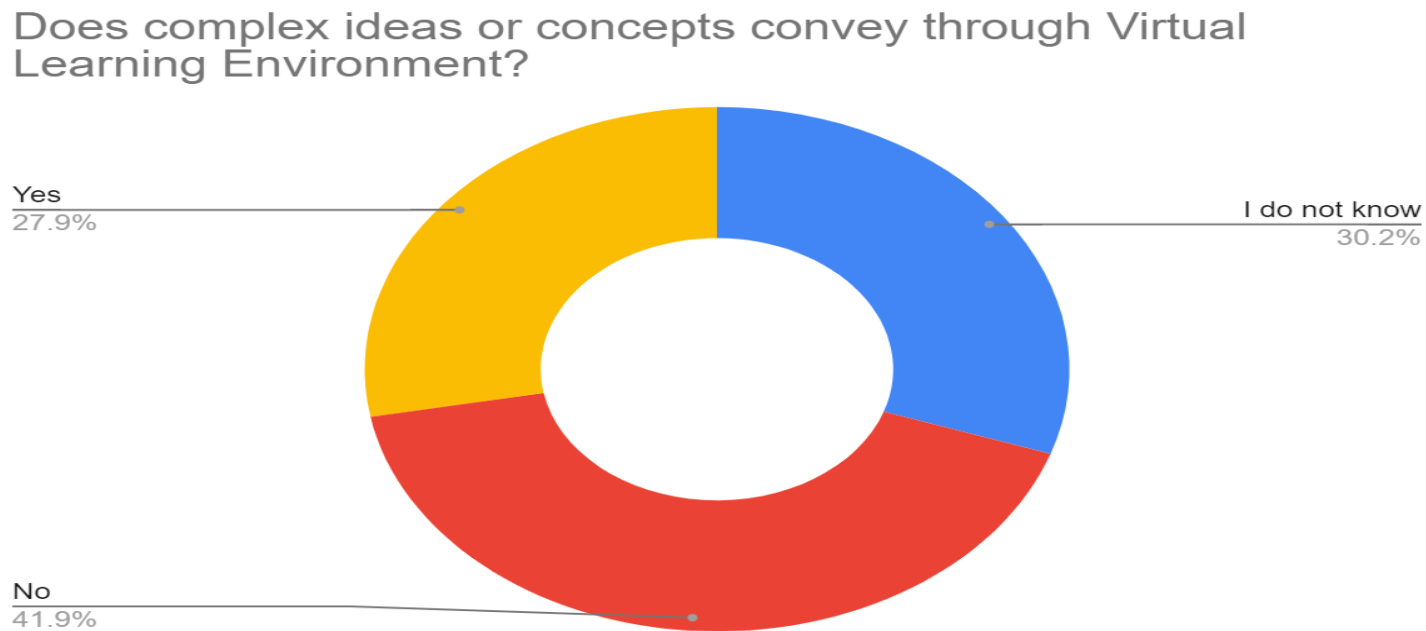


Figure 10 Does complex ideas or concepts convey through Virtual Learning Environment?

4.11 Difference between VLE and the Classroom Learning Environments

The majority (88.6%) claimed that difference between VLE and Classroom Learning based on social interaction, learning place and time, instructional material. However, small number (11.4%) of them they were not sure.

Is there any difference between the Virtual Learning Environment and the Classroom Learning Environment?

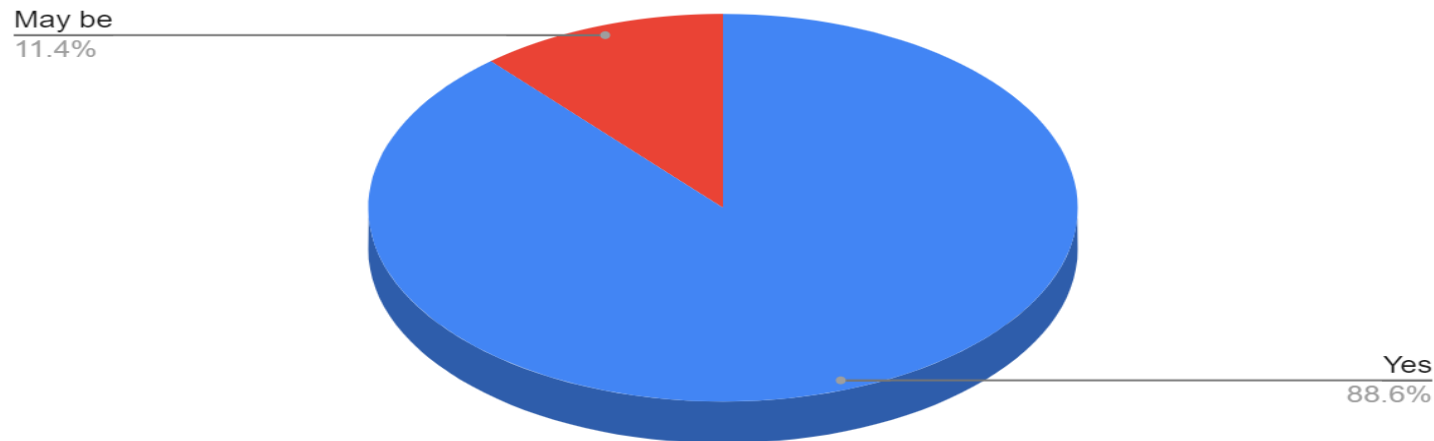


Figure 11 Is there any difference between the Virtual Learning Environment and the Classroom Learning Environment?

4.12 Learning preferences

As study suggested 72.7% preferred being in-personal with students or instructors. Only 22.7% preferred to study through technological devices such as video, audio, and other computers apparatus. Nevertheless 4.5% of respondents neither prefer VLEs nor confront learning environment.

Which one do you prefer between virtual learning environment and classroom learning environment?

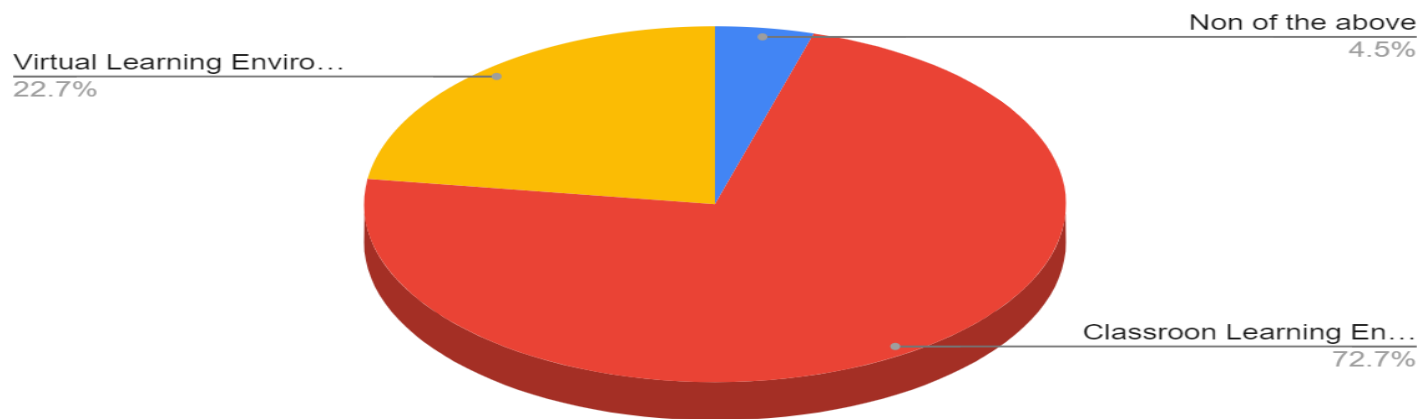


Figure 12 Which one do you prefer between virtual learning environment and classroom learning environment?

4.13 Social Media in VLE

In this study 50% argued that social media such as google, YouTube and Twitter are very effective tool catalysing the efficiency and excellence of educational systems. However, some (15.1%) believed that often instructors lead and control learning objects and interactions between students. But 34.1% of them did not know if the social media use in education can control the context of virtual learning because they do not have VLE in their education setting.

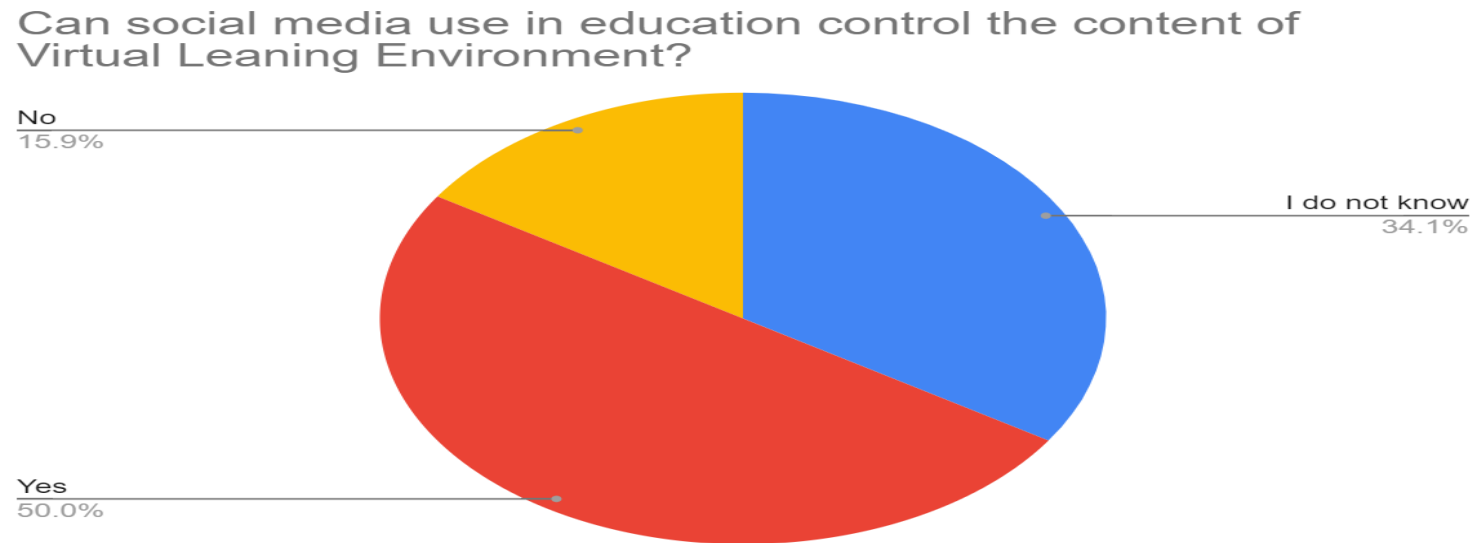


Figure 13 Can social media use in education control the content of Virtual Learning Environment?

4.14 Student satisfaction

A total of 29.5% stated that the student group taught using the VLE had higher scores than the students attended classroom learning. Although 31.8% claimed students' learning styles seemed to have no effect on their satisfaction and ease of learning. However, majority (38.6%) they were not sure.

Does virtual Learning Environment improve student satisfaction?

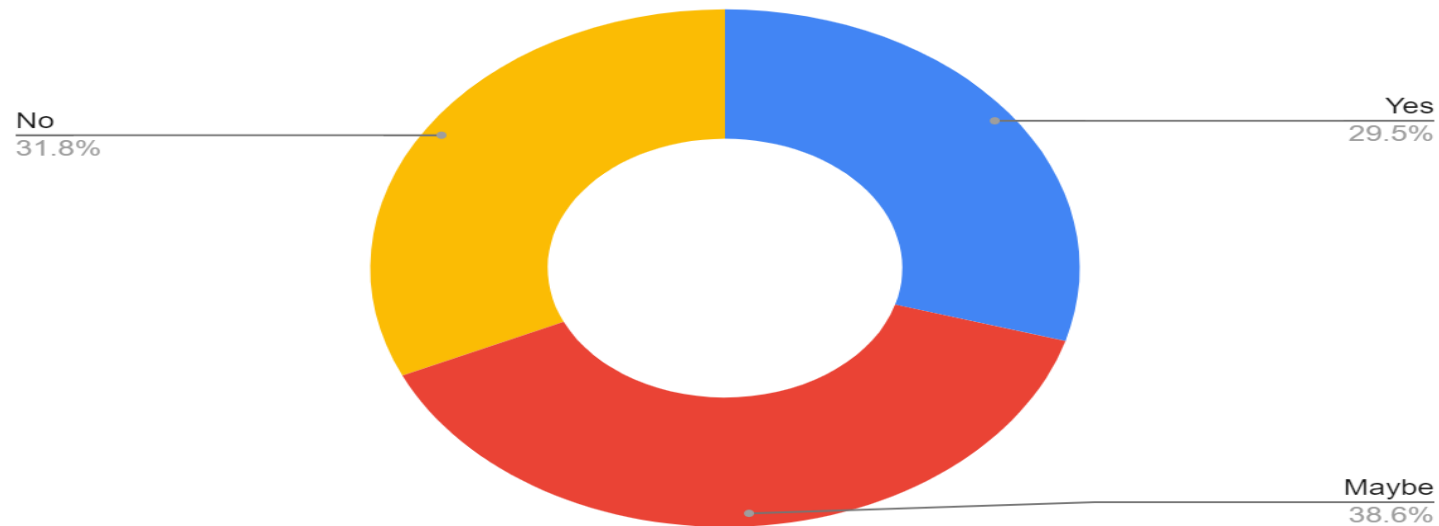


Figure 14 Does virtual Learning Environment improve student satisfaction?

4.15 Future mode of education

Majority (63.6%) stated that because the world is in digitalized era, it is very important for VLE in learning process. However, 15.9% claimed that status in-personal learning is efficient over VLE. And 20.5% did know nothing.

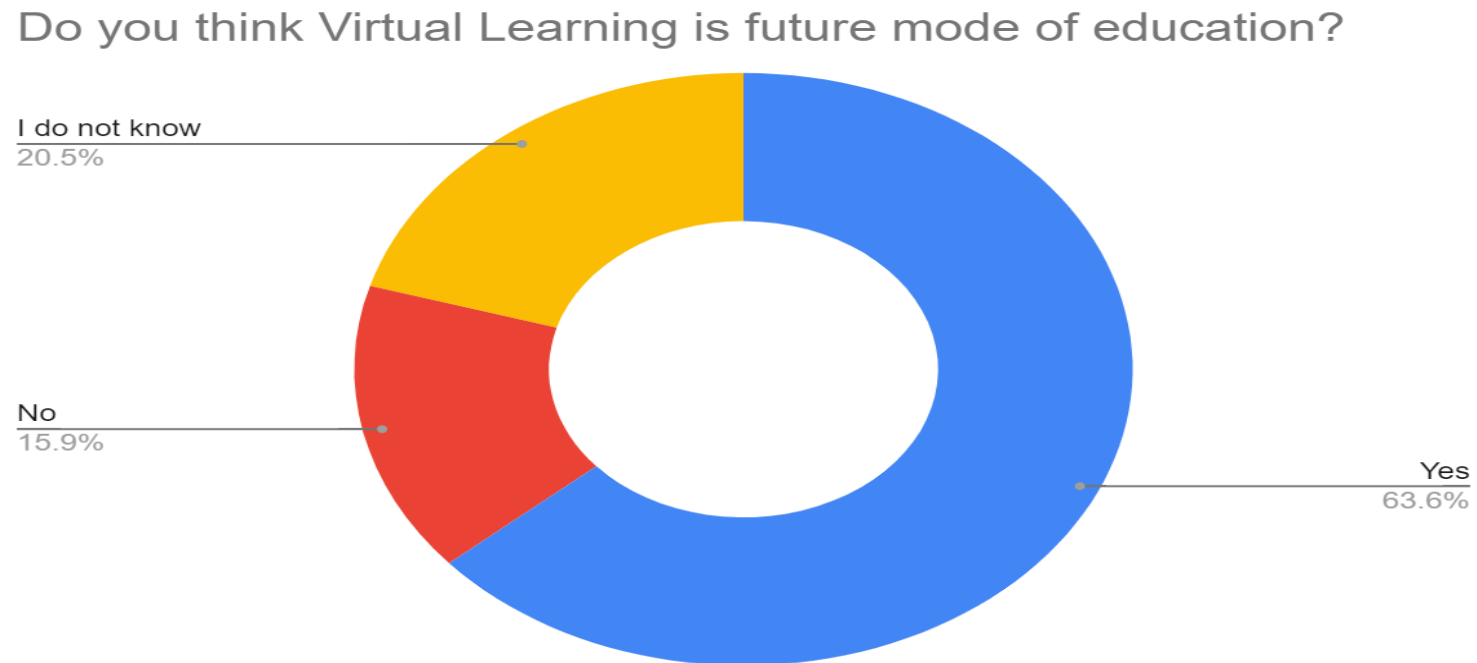


Figure 15 Do you think Virtual Learning is future mode of education?

4.16 Time management

Most learners (77.3%) argued that, they save many hours to travel from home to school and vice versa. Meanwhile, about 9.1% learners spent much time on VLE, thus, they spent more than 10 hours a week in a term.

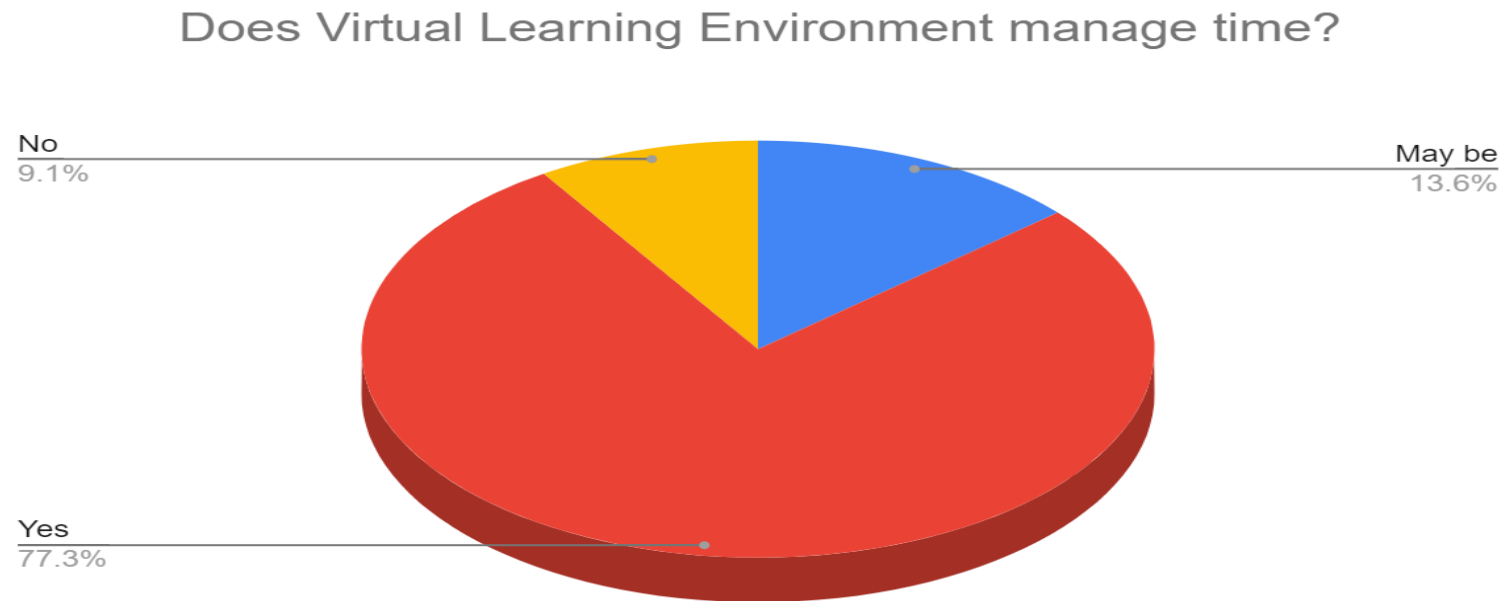


Figure 16 Does Virtual Learning Environment manage time?

4.17 Affordability

The 59.1% of respondents suggested that the cost to acquire a degree even at top universities becomes cheaper because there is no need for paying campus fees. However, 22.7% argued that VLEs are most expensive learning in terms of the cost of internet resources and connection. Not all learners can have enough money to buy technological or internet resources apparatus for learning. And 18.2 % they did not know.

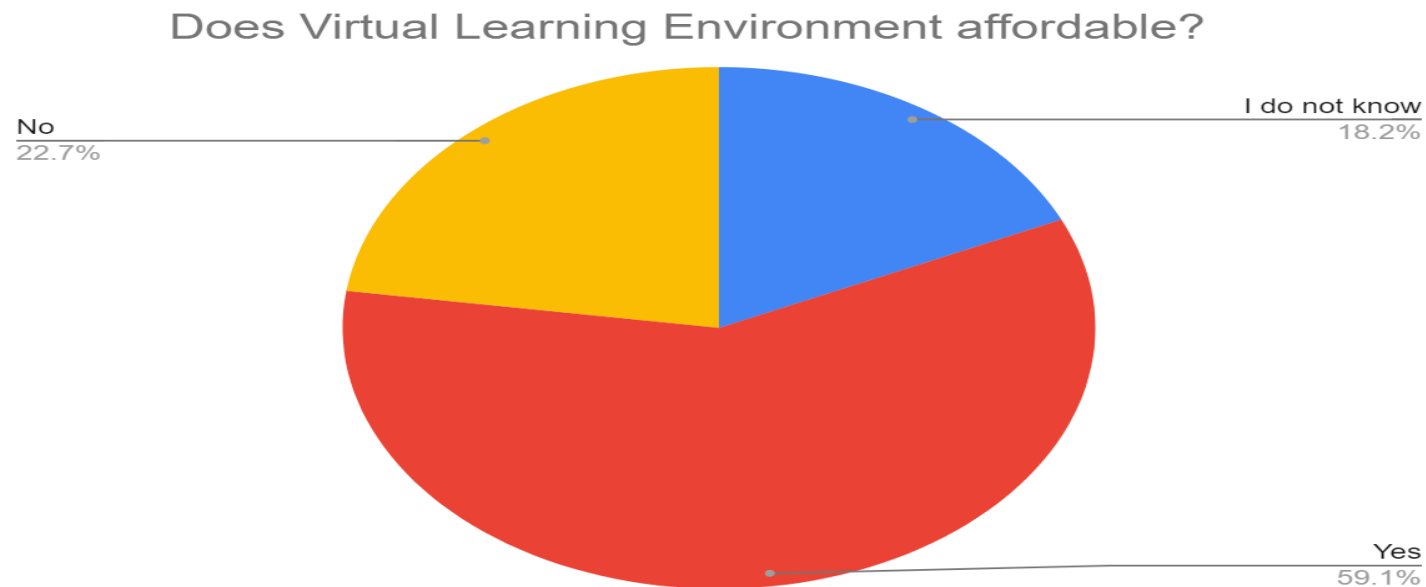


Figure 17 Does Virtual Learning Environments affordable?

5. CONCLUSION

Technological advancement provides opportunities for learning to become more adaptable, interacted, and compactable. Hence, different types of learning are taking place outside the classroom than in it; learners can learn anywhere and anytime. Whereby, the instructors can produce the learning information which is in a digital form and distributed through the internet, and they can answer questions, discuss the content and help solving problems. With the help of VLE, the educational process becomes more flexible, especially in terms of time, place, cost, and student engagement.

However, this flexibility can turn out to be a problem for learner with a weak motivation; and because learning system need students to be more independent, it is very important to reconsider about creating long-lasting control and strict deadlines. Despite the VLE provide many tools to facilitate communication, but its learning system discourage interpersonal relationship among the user and make difficult for learners to enhance their communicative and conflict-solving skills. Nevertheless, through VLE some courses and degrees become theoretical than practical as in traditional learning system, thus, not all courses can be done online. Therefore, to implement the VLE, the educational institutions need to adapt to new ways of the learning process organisation.

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APPENDIX

QUESTIONNAIRE

1. Age of participants
 - a) 10-30
 - b) 31-50
 - c) 50+
2. Gender of participants
 - a) Female
 - b) Male
 - c) Prefer not to say
3. Professional of participant
 - a) Student
 - b) Employed
 - c) Unemployed
4. What is Virtual Learning Environment?
 - a) Learning
 - b) Creativity
 - c) Choice

5. Does the Virtual Learning Environment affect your studies?
- a) Yes
 - b) No
 - c) May be
6. Is virtual leaning environment conveniently?
- a) Conveniently
 - b) Not convenient
 - c) May be
7. Do you have knowledge about Virtual Learning?
- a) Yes
 - b) No
 - c) Prefer not to say
8. Is Virtual Learning Environment truthfulness of e-leaning systems?
- a) Yes
 - b) No
 - c) May be

9. Is there any application of virtual learning in your education setting?
- a) Yes
 - b) No
 - c) Prefer not to say
10. Do you agree or disagree using virtual learning in higher education context?
- a) Agreed
 - b) Disagreed
 - c) None of the above
11. What is your opinion or experience about Virtual Learning Environment?
- a) More learning materials
 - b) Low quality of communication
 - c) None of the above
12. Does Virtual Learning Environment motivate student and academic staff?
- a) Yes
 - b) No
 - c) I do not know

13.Does complex ideas or concepts convey through Virtual Learning Environment?

- a) Yes
- b) No
- c) I do not know

14.Is there any difference between the Virtual Learning Environment and the Classroom Learning Environment?

- a) Yes
- b) No
- c) May be

15.Which one do you prefer between virtual learning environment and classroom learning environment?

- a) Virtual Learning Environment
- b) Classroom Learning Environment
- c) None of the above

16.Can social media used in education control the content of Virtual Learning Environment?

- a) Yes
- b) No
- c) I do not know

17.Does virtual Learning Environment improve student satisfaction?

- a) Yes
- b) No
- c) May be

18.Do you think Virtual Learning is future mode of education?

- a) Yes
- b) No
- c) I do not know

19.Does Virtual Learning Environment manage time?

- a) Yes
- b) No
- c) I do not know

20.Does Virtual Learning Environment affordable?

- a) Yes
- b) No
- c) I do not know