

A study on student's perception towards virtual learning environment, Palakkad

Amritesh PS, Jeayaram Subramanian

Abstract: Virtual learning has changed the way of teaching and learning within last 15 years. Virtual learning has made it easy to understand the difficult experiments of Mathematics, Biology, Physics, and Chemistry. Virtual learning environments is available for select modules in Mathematics and Sciences for classes 6th std to 12th std. These modules have been selected from various state and central board and cover a wide variety of topics. This paper presents a survey of 200 students who has experienced Virtual learning experience for learning. The main objective of the study is to fully grasp whether Virtual reality helps in giving them concept clarity and whether it makes learning easier for them to learn and remember.

Keyword's Virtual learning environments is available for select modules in Mathematics and Sciences for classes 6th std to 12th std.

I. INTRODUCTION

In the older times one of the biggest problem which students used to face was understanding the concepts and logics in the topics of subjects like Physics, Chemistry and Biology. For students it used to become boring as they could not able to imagine and connect with the teachers and topics. The concentration and enthusiasm levels of students decrease over time. The virtual learning environment has a deep effect on aiding effective learning through controlling stress levels and increasing enthusiasm.

II. LITERATURE REVIEW

The literature shows a profound investigation into the relationship between technology and education. Virtual learning Environment elucidate a form of Information and communication technology learning. This method of learning facilitates the distribution of content. This allows students to exchange opinions and information via ICT, regardless of time limits or geographical limits. The literature does, however, show little empirical evidence for the effectiveness of VLEs in the outcome of a learner. Lizzion, Wilson & Simons found that somehow learners are heavily influenced by the belief of a good teaching environment and are mindful of deep teaching environments which have direct and indirect impacts on learning outcomes.

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Rapid technological developments have permitted the latest technology of learning to mutate. The incursion of number of supportive elements has separated educator's options too for technology-online learning, including a heterogeneous set of elements, such as learning workflows (LMS), virtual classrooms, several open online courses (MOOCs). One of the most fundamental aspects and their use is that they invest in two side communication with students, lead to better socialization and free online cooperation.

B Traditional learning Environments

The persuasive factors in the classroom and its impact on learning motivation, Motivation is a factor which is crucial for teachers to educate students (Scheidecker, 1999:116). Motivation is considered to be an evidential expression in the learning methodology (Ushioda, 1996). The intake of learning by a learner in learning is dependent on aptitude and motivation.

C Social learning environments

(Bandura. A 1977. 247 p)The classroom learning with tactical and strategic training were analogous in efficiency.it is remarkable from that SLEs give clear advantages over all of traditional classroom guidance in so many situations(e.g., they eliminate the logistical challenge of scheduling meetings, allow geographically dispersed trainees access to training)

D Virtual learning Environments

Dobrzański, L. A., Honysz, R. (2007) discusses that virtual learning environments are generally utilized in mixture of blended subjects in learning. The core points of virtual learning environments are that they are open remotely, they permit sharing of assets at various schools, and they cut costs of laboratory. Durey, A. and Beaufils (1998).

E Virtual learning versus Traditional learning

(walters RH 1997) Behavioral Results (i.e., students able to showcase a skill they were taught in traditional environment are crucial for evaluation because it proves that traditional environment improves skillsets vital to grades or performance prior to the subjects they are taught in. (Bandura. A 1977) says that the traditional learning shows to be less effective in demonstrating skillsets prior teaching concepts to the students

A Virtual learning advantages

(Arhaugh, 2000a; Harasim, 1990; Leidner & Jarvenpaa, 1995). The two sole factors contributing to the model are the purported applicability prior to a new technology and also its intook relative ease of use.



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The recognized effectiveness is characterized as both a barometer of the limited extent to which a person helps improve their overall performance using a particular solution and thus symbolizes such a barometer of the extrinsic rewards of an individual using a technology.

F. The Role of Flexibility In virtual learning Environment

The place and time independence of either the CMC media today allows users to have a huge amount of efficiency in where and when they contribute in learning subjects.

G .Research Gap

It seems that in the education sector, there was an Increase in the use of virtual reality (VR). The digital technology is known to be much help in outrage. The hardware with increased virtual reality aligns the encoded information, video clips produced with both the modern educational viewpoint as well as provides students all with a unique experience.

- The small research gap seems to be in the emergence of augmented reality in education sector and students enthusiasm to be more in adopting the digital technologies. Use of coding's (embedded codes) to enact interactive elements in new virtual models. In virtual reality, the scripts were authored and integrated to also enable personalization and exhibit of data.
- The effect of augmented reality in the enthusiasm of students in learning concepts in comparison to virtual reality is unknown as the augmented reality is yet to override virtual reality in the market. It seems the enthusiasm level of virtual reality among students and adoption rate is increasingly becoming high and with Google AR core, Facebook and Apple's AR kit launched in 2018 the effect of Augmented Reality is unknown.
- The Existing education system using virtual Reality is used for this research and with the above technological intervention of Augmented Reality becomes gap in this study.

In this study exploratory research type design is used, which includes questionnaires and expert interviews of different kind of opinion from the recruiters. Exploratory research design is used since there are less amount of studies done on this topic. The data collected from the respondents are analysed with the help of different statistical tools.

III. RESEARCH METHODOLOGY

A Sampling design

Convenience Sampling was used for the study since it includes recruiters who were easy to reach. For qualitative study convenience sampling is commonly used

B Research strategy and instrument

Population of the study is 200 students from class 8th to 12th who is using Virtual learning environment to study the concepts of Maths and Science. Primary data is collected through questionnaire. The questionnaire includes 14 questions. For each question, the student answers on a Likert scale.

C Sample size and area of study

200 recruiters from companies in Kochi, Trivandrum who had registered with the online job portal were the participants of the study.

D Data collection

Data collection was done in qualitative method. In qualitative method direct interview was taken with the students. The results obtained from these interviews were used for identifying the perception of students. Both primary and secondary data is used in the research to meet estimated requirements.

Primary Data: Data collected through responses from students in school.

Secondary Data: The secondary data are sourced from already published and available from websites and published documents.

E Statistical analysis tools

The data has been analysed by using the following test.

Percentage analysis using excel

Percentage analysis is done for understanding the usage of competitor sites, perception of recruiters towards the site, etc. This will help to understand the collected data more

F Student survey

The main objective of this study is to understand whether virtual environment helps in giving them concept clarity and whether it makes subjects like maths and science easier for them to learn and remember. According to students they started enjoying maths and science because of virtual learning. Virtual learning gives the concept clarity, virtual learning helps in making the subject easier to learn and remember.

IV. RESULT AND INTERPRETATION

1. Is it easy to understand the concepts and experiments using virtual learning environment as compared to old way of learning

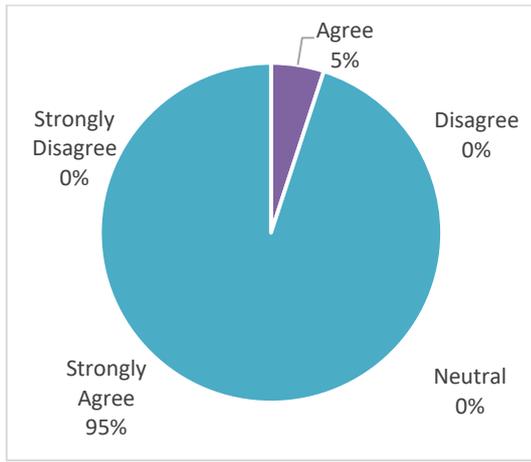


Figure 1

figure shows 95% students strongly agree and 5% students agree. So, It is clear that virtual learning environment helps students to understand a concept in a much better way as compared to traditional labs.

2. Do you think your score has improved in lab practical exams due to visual learning environment labs?

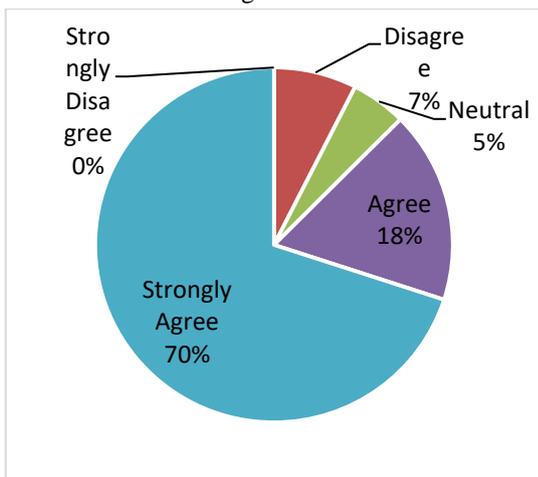


Figure 2

It is inferred that 70% of students strongly agree, 18% agree, 8% disagree and 5% neutral. It is concluded that majority of the students strongly agree that their score has improved in lab practical exams due to Virtual Learning Environments. So it shows that Virtual learning environment has helped in improving the scores of the students.

3. Do you think it's easy for teachers to teach practical modules using virtual learning environments?

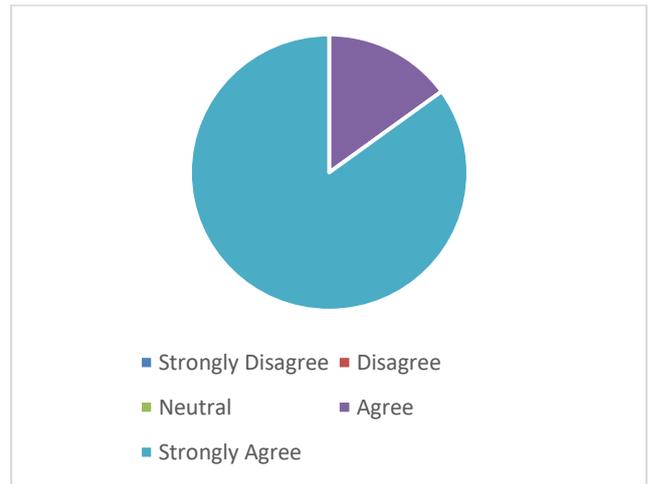


Figure 3

Above figure shows that 85% of students strongly agree and 15% of students agree that Virtual learning Environment makes it easy for teachers to teach practical modules.

4. Is it easy for you to recollect the learning you did in Educomp 3D labs even after one month?

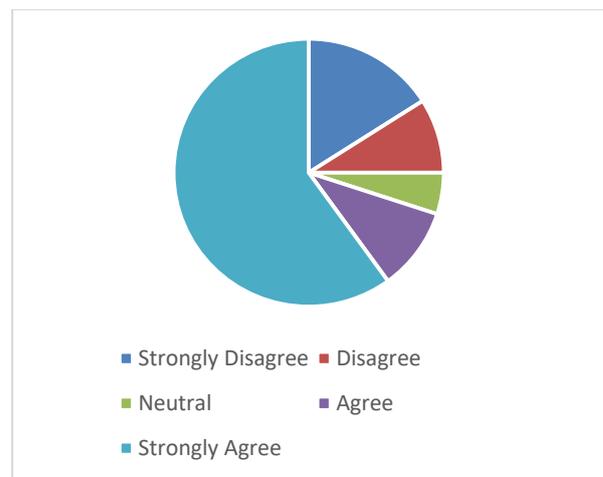


Figure 4

Above figure shows that 60% of the students strongly agree, 10% agree, 16% strongly disagree, 9% disagree and 5% neutral. So it shows that virtual learning environments helps the students to recollect the learning very easily even after the one month.

5. How many of you wants to take science as a subject in 11th and 12th because virtual learning environment has made it easy for you to understand the concept?

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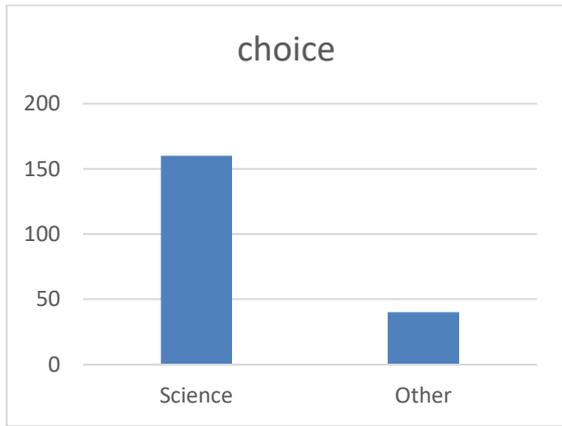


Figure 5

Above figure shows that out of 200 students 160 students wants to take science as a subject in class 11th and 12th because Educomp 3D lab makes it easy for them to understand the concept.

6. Do you enjoy being in virtual learning environment and learn the experiments using virtual learning environment labs.

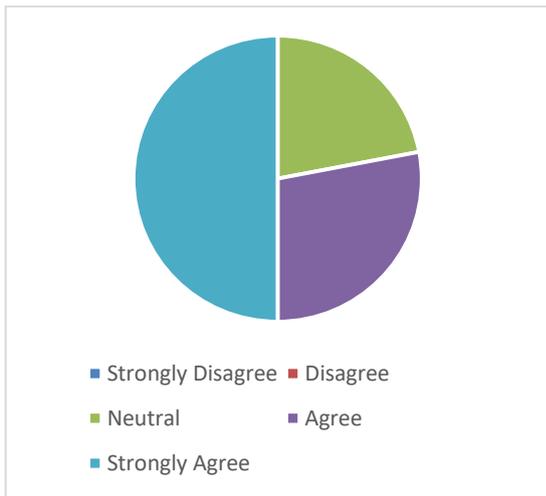


Figure 6

Above figure shows that 50% Students strongly, 28% Agree and 22% are neutral. So, we can say that students enjoy doing experiments in virtual learning environment.

7. Do you think your fear for science and maths has gone away due to virtual learning environments?

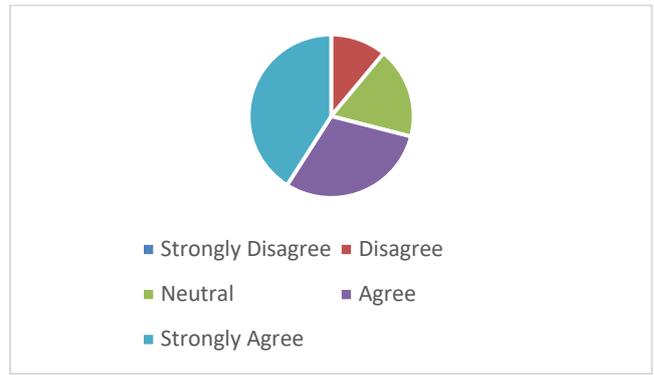


Figure 7

Above figure 7 shows that 41% of the students strongly agree, 30% of the students agree, 18% are neutral and 11% disagree with the fact that their fear for science and maths has gone due to virtual learning environments.

8. Do you think subjects like science and maths would become very difficult for you to learn without virtual learning environments.

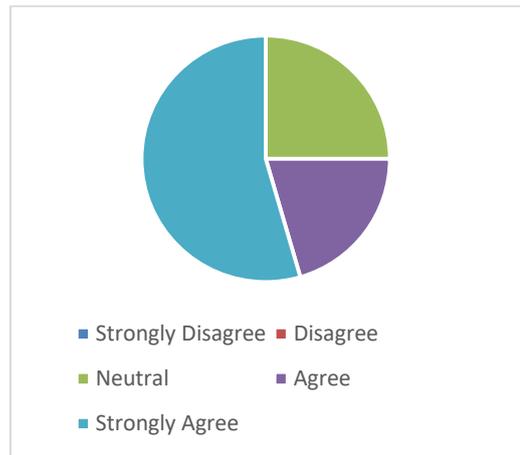


Figure 8

It is inferred that 55% of students strongly agreed, 21% agreed and 25% students does not have any idea. So, it shows that without virtual learning environments subjects like maths and science would become difficult for students to learn.

9. Do you think, virtual learning environment helps you in understanding the concept instead of by hearing them?

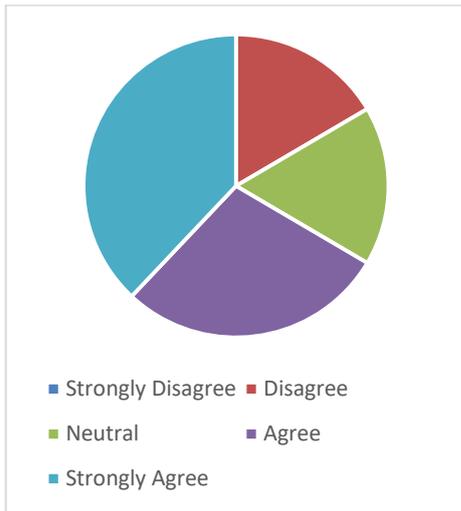


Figure 9

Above data shows that 38% students strongly agree, 29% agree, 17% does not have any idea and 17% disagree. So, we can say that through virtual learning environment majority of the students to understand the concept instead of By-hearing that.

10. Do you feel enthusiastic on days when you have virtual learning environments?

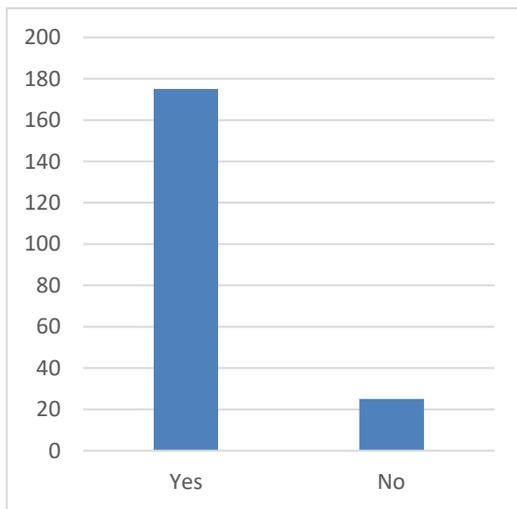


Figure 10

From the interpretation it is very clear that majority of students feel enthusiastic on the days when they have virtual learning environments.

11. Do you think, reading the same concept from the book makes more sense after virtual learning environment learnings?

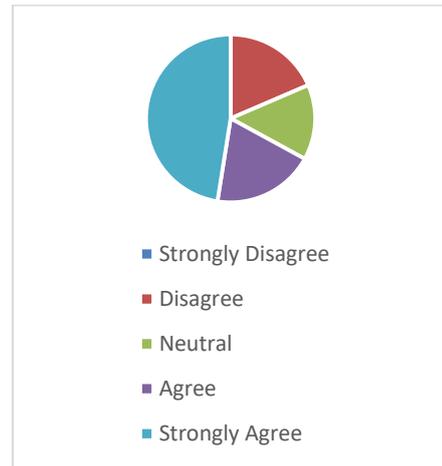


Figure 11

It is inferred that 48% of students strongly agree, 20% agree, 19% disagree and 15% are neutral. So, it shows that reading the same concept after learning it through virtual learning environments makes more sense to the students.

12. Do you think after learning a concept from virtual learning environments you can present the same concept with much clarity?

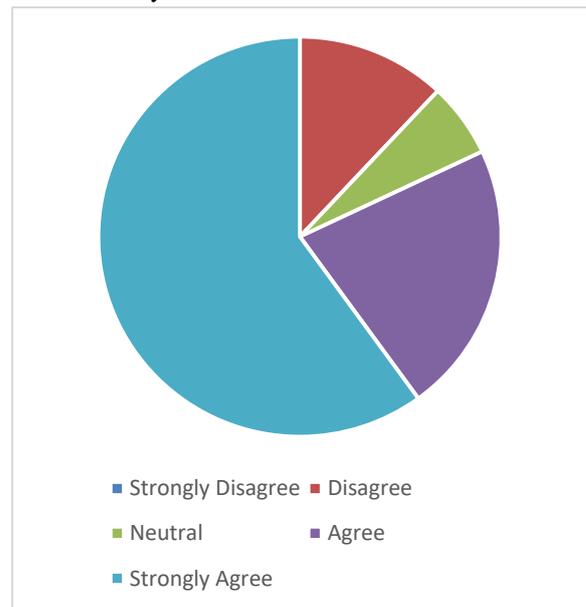


Figure 12

From the interpretation it is inferred that 60% of students strongly agree that the virtual learning environment can present the class with much clarity than the traditional class.

13. Do you feel boring in virtual learning environment?

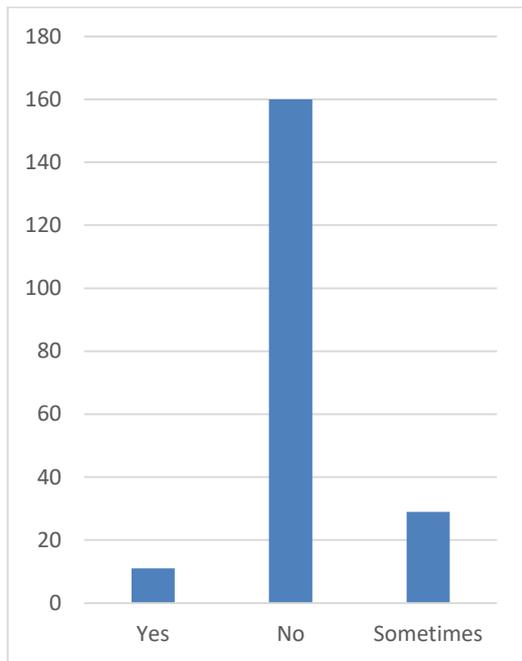


Figure 13

From the interpretation it is very much clear that majority of students agreed that they won't get bored in virtual learning environment. 14. Do you think when you were not using virtual learning you were an average student but after its use you are an above average student.

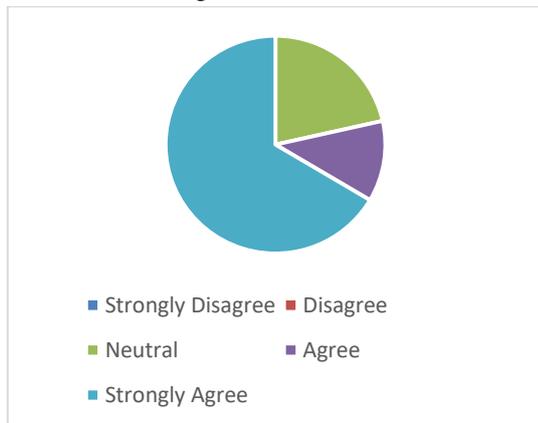


Figure 14

Above figure shows that 67% of students strongly agree, 12% agree and 22% said neutral. So, it shows that the standard of students has increased from average to above average due to virtual learning environment.

V. CONCLUSION

Virtual learning environments has made life simpler and easy to understand for students. The complex theories have become easy to digest in educomp. Concepts and experiments have become comparatively easy to learn. There has been remarkable improvement in practical's exam scores. Students have found it easy to recollect the concepts. With the advent of virtual learning environments students find it interesting to take science as their subject. Even the fear towards science and maths has gone down. Among other things virtual learning environment has made it easy for concepts to understand bringing in clarity and

enthusiasm towards the same. Inevitably virtual learning environment has become the need of hour with above advantages and minimal drawbacks. In future we plan to look into lives if teachers who feel confident teaching the concepts to students through virtual learning environments. Drawbacks include costly installation and yearly maintainance. All in all virtual learning environment benefits everyone with emphasis on concepts.

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