

DSR ASSESSMENT 2 INDIVIDUAL REPORT

Student Name: Gejza makuna

ID: 2119453

Executive Summary

The concerned Study of the report discusses the aspects of the virtual learning environment in order to analyse the learning experience of students. The researcher of the concerned study collects primary and secondary data and analyses them to make an effective report. The importance of virtual learning and barriers to virtual learning can be understood from the detailed description of the study. Different questionnaires take an important place within the primary data collection process that helps the researcher to know about the personal experience and beliefs of respondents. Secondary research and information also play an effective role in evaluating the aspects of the virtual learning environment. Applying proper literature study and taking help from several journal researchers provides a detailed description of the topic.

Table of Contents

Introduction	4
Primary Data Collection and Analysis	4
Secondary Data Collection and Analysis.....	8
Conclusion	10
Reference List.....	11

Introduction

An environment of virtual learning not only offers an elegantly designed space for learning and teaching but also provides an opportunity for flexible learning with the help of digital technology. A good process of virtual learning allows users to concrete the environment of learning together for a period of time. The respective report sheds light on the analysis of virtual learning to know its influence with the help of primary and secondary data collection processes.

Primary Data Collection and Analysis

Virtual Learning and Efficiency

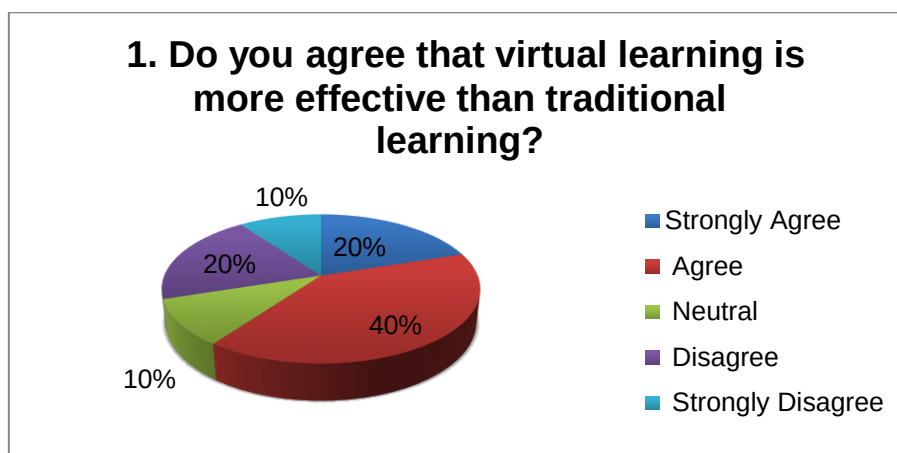


Figure 1: Responses to the first question

(Source: Created by the Author)

Most respondents agree with the first question due to several benefits of virtual learning. According to 40% of the respondent, the student can get access to join their classroom from any location and take necessary notes later at any time. The program of online learning is also built on a weekly assignment structure; therefore, students can get the freedom to choose their flexible time for participation and completion of their assigned tasks (Bogusevschi et al., 2020). Though 20% of respondents don't support the virtual learning process due to several challenges faced, most respondents support that virtual learning can be an effective process with proper internet connection and supporting devices. Effective application of the digital world provides an opportunity for the learner to access several materials of courses within their own time (Yang et al. 2018). Teachers also can set up folders on the virtual platform that can keep pre-recorded classes and records. Respondents also describe that the most effective advantage of virtual learning is cost-effectiveness. Students do not require any travel costs due to classes in their own homes. Spending less time on the road can also be beneficial

for the environment as it signifies less Carbone footprint matter (Yang *et al.* 2018). Processes of distance learning also save more time by saving the travelling time and others. Therefore, students and learner can utilise their time and can manage their time effectively.

Barriers to Virtual Learning

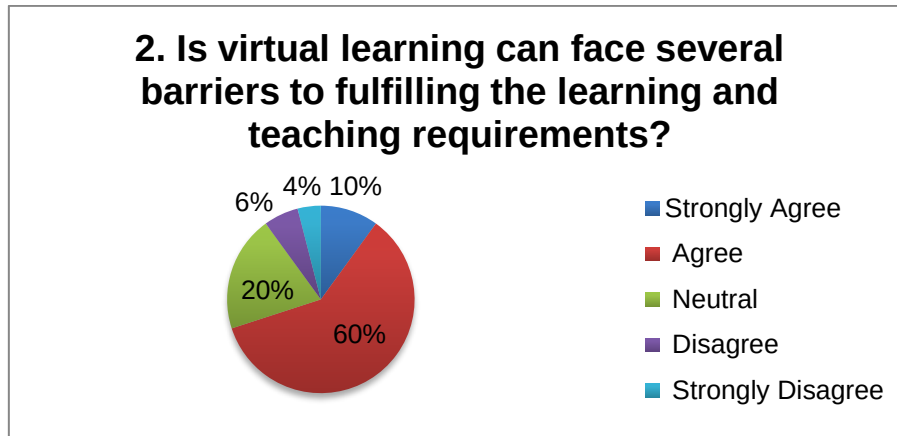


Figure 2: Responses to the Second question

(Source: Created by the Author)

Approximately 60% respondents state that virtual learning has several barriers, including lack of proper internet connection, less motivation, issues in personal understanding, inadequate support, lack of involvement with community and so on. They also opine that student with the virtual learning process also can feel disengaged and bored due to a lack of proper concentration and communication with the teacher. Every student has not had a similar understating power and needs proper guidance within their educational processes. In some scenarios, a student can face numerous issues in the virtual learning process (Tan *et al.*, 2021). Of the overall respondent, 6% do not agree with the respective question for their viewpoint and other reasons, and 20% of respondents are neutral. The respective process also can be responsible for creating less community involvement due to spending more time online by following a separation or isolation process. People can reduce the concerning impact by building an active community of online learning.

Creating online forums and groups on social media also can reduce the respective issues. Respondents also describe that not everyone has experience with the e-learning process, and they can face several issues during its use. An online learner with a bad experience wants to avoid the individual approach due to a lack of engagement and issues (Hantoobi *et al.* 2021). The online learner needs minimum technological expertise to access the necessary platform and a good device for their learning processes. In the respective scenario, not everyone has a system or a good smartphone so it can be challenging for them.

Devices and Virtual Learning

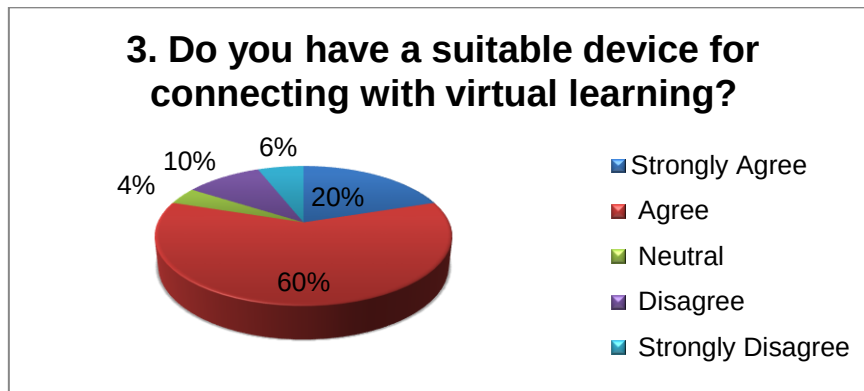


Figure 3: Responses to Third Question

(Source: Created by the Author)

More than 60% of respondents state that they previously had no devices for connecting with a virtual learning environment, but now they have, as it has become a certain solution within the pandemic situation. Though 10 % convey that they still do have not an appropriate device for taking the virtual learning, and therefore they do not support the concern process for learning and teaching. The concerned issue can resolve through community involvement. For example, students can engage with the respective learning process by creating small teams (Bogusevschi et al., 2020).

Learning Problems in Virtual Learning

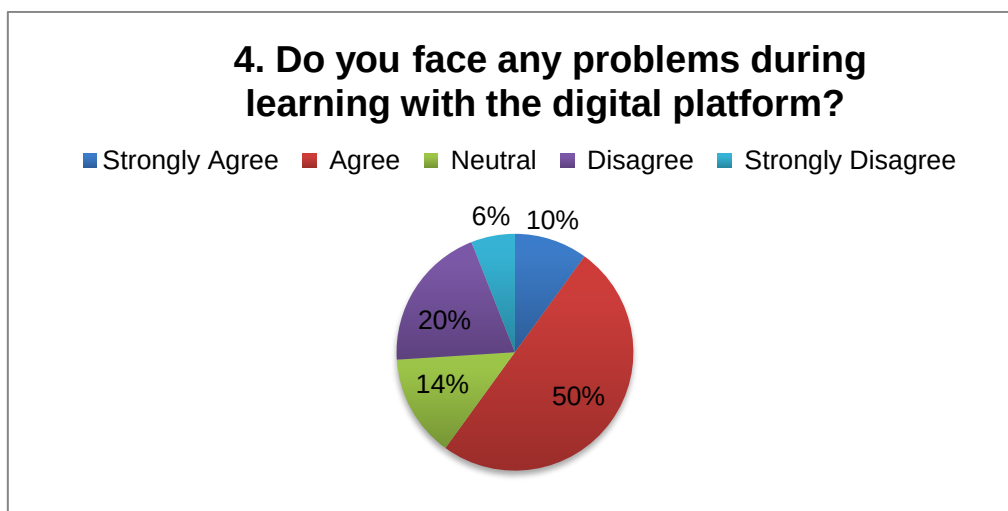


Figure 4: Responses to Fourth Question

(Source: Created by the Author)

Of all respondents, 50% state that during their virtual learning process, the student can face issues with taking their lesson. Due to a lack of proper settings communication process can be disrupted and creates issues within the study or chapter clarification (Aljohani et al., 2019). Within the setting of e-learning communication, a lack of proper collaboration between students and teachers cannot fulfil the goal of virtual learning. Misunderstanding can occur within the communication gap and can lead to several challenges for a learner (Chaim et al. 2018). The expectation of students can become uncertain due delayed in the feedback process within online learning for the absence of proper format online. Approximately 6% of respondents strongly agreed with the question and explained that clear instruction is an essential factor for a student. Otherwise, they can be confused, which affects their decision-making power. Students sometimes cannot manage their time properly due to a lack of an appropriate engagement with the study process, less expertise in technological uses and other reasons (Queiroga et al. 2021). All of these mentioned issues are associated with ineffective management of time. Lastly, but not the list, the student also cans experience stress and poor sleep pattern during their exam time and the time of self-evaluation.

COVID19 and Virtual Learning

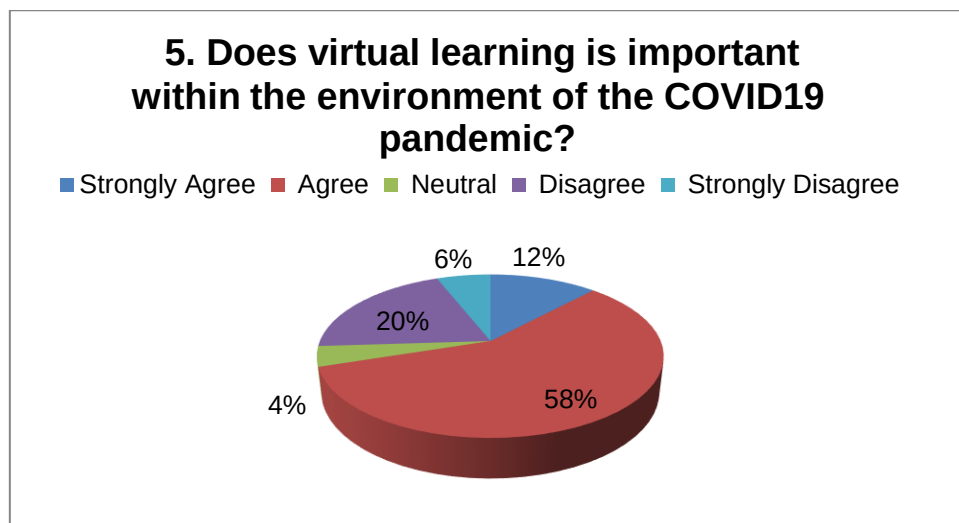


Figure 5: Responses to Fifth Question

(Source: Created by the Author)

Within all respondents, 58% support that virtual learning plays an effective role in the pandemic situation of COVID19. Various learners and educators also support the virtual learning process by developing online sessions and learning materials. Learning through several tools of video conferencing can meet the need of a student in a traditional manner

(Aljohani et al., 2019). Virtual learning is not a new concept. However, the situation of COVID 19 pushes this trend to gain popularity and maximum use.

Virtual learning is not only just taking some lessons with the help of a video conferencing tool but also an entire shift in the teaching process through the understating of a blended model of learning by parents, students, and teachers. Though 20% of respondents were against the respective question, they conveyed that the balance between offline and online tasks is a critical aspect to consider within the design of the lesson plan and timetable. However, the Approaches of virtual education open several possibilities to rethink the way of learning and teaching. The entire environment of teaching and learning needs to transform from the classroom to the home. Educational stakeholders can face challenges within the transition process of virtual learning (Bogusevski et al., 2020). Parents need to understand it in a different way for the educational growth of their children. Respective learning needs a clear and well-established structure that allows the learner to be successful.

Secondary Data Collection and Analysis

Working within a virtual environment of learning, it is essential to consider different key areas like teaching design, requirements, the contribution of higher educational institutions, functional needs of different courses and their delivery process and other aspects. According to researcher Carlotta Olivetti *et al.* (2019), teachers have sufficient pressure to select and execute an appropriate approach within their teaching. Teachers who feel that they have sufficient control in their teaching process can adapt the focus of the learner effectively. Teachers also support the uses of a virtual learning approach that allow the student to attain a face-to-face lesson from their flexible locations. Students engaged with the respective environment of virtual learning can be categorised into two major parts such as students who don't spend more time in education but spend time in virtual learning, and other category is that students who don't spend more time in virtual learning.

Various studies researchers also argued that some university students cannot meet the original speed of the internet and also do not have adequate tools to support their learning process. On the other hand, studies also show that virtual learning program helps the student to refine their understanding of their knowledge. Growth of the virtual learning in different countries is shown in the figure below:

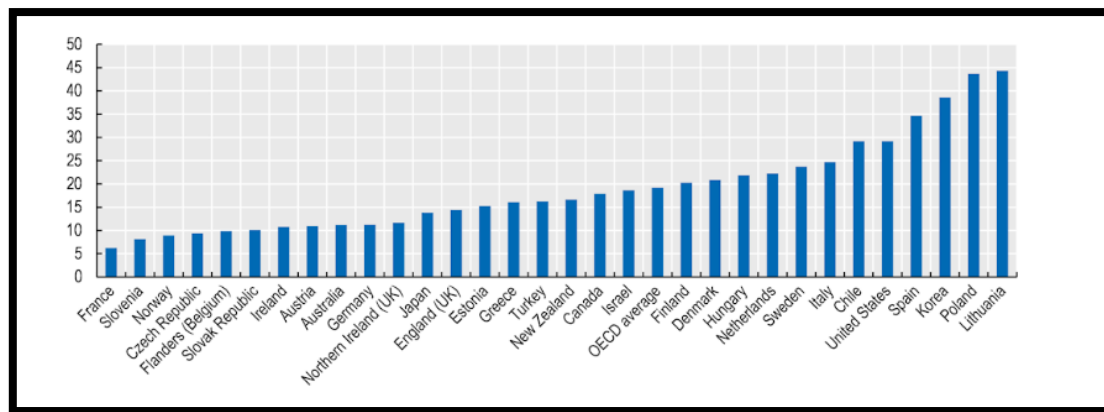


Figure 6: Online Learning Growth in Different Locations

(Source: Statista, 2021)

Li, Wang, Zhang and Sherwood (2021) opined that Virtual learning and the aspects of higher education are highly essential for professionals and decision-makers who are involved in the phases of implementation, design, and also evaluation process of online learning for serving the community of higher education. Various studies shed light on aspects that were driven by the influence of virtual learning on the process of teaching. The successful integration process of technology within the courses of a student depends on the access and availability and also the process of lecture uses in a device (Carlotta Olivetti *et al.* 2019).

Virtual Learning Environment (VLE) and Pedagogy

Virtual learning can be an approach to education that has a clear view and approaches to achieve the goals and aims of educational strategies. Tuttle and Hansen (2021) stated that VLE also needs to focus on various learning activities and the utilisation of those activities with proper plans and resources. Successful use of VLE depends on the quality of the design of a course and pedagogy. Various pedagogy models can be seen, such as learning based on an open resource using easy web technology and collaborative learning approaches. Various studies show that the approach of distance learning created a new teaching pedagogy.

A lack of ability of several teachers to develop pedagogy needs and skills can be signified as an important issue that can affect the VLE communities and their creation. Hamid *et al.* (2018) Opined that a relationship could be seen between pedagogy, personal experience and distance learning. The traditional process of face-to-face education mostly focuses on the aspects of individuals for achieving a productive output. According to the constructive pedagogy, the aims of higher education can be divided into parties like the acquisition of skill and knowledge, development of the international process of learning, socialisation and others.

The domain of learning and teaching experience starts to change rapidly that accept the concepts and practices of virtual learning. Various universities in the present day have started to offer different web-based courses that can work as a supplement to traditional courses that are based in the classroom. Virtual learning has a great contribution for providing a convenient and flexible opportunity for working collaboratively and closely with different learners from different universities across the globe. Research proved that the environment of virtual learning is the technology that plays an effective role in enhancing the experience of student learning using several tools of learning and teaching.

Experience of distance education is a valuable aspect without the approach of a traditional process that can refer to the difference within their experience qualities. VLE has become more popular and interactive in present-day within various learning institutions. According to several researchers, a virtual learning environment allow the process of direct communication with the help of lectures and classes. Researcher Hamid *et al.* (2018) opined about the positive impact of VLE and stated that VLE could sue the effects on students within their academic performance.

Conclusion

An entire research study of the report discusses the aspects of the virtual learning environment in order to analyse it from the perspective of appropriate uses of computer technologies for improving the efficiency and engagement of students. The researcher focuses on primary and secondary data collection processes for making an effective discussion within the concern report. Questionnaires with graph charts are represented within the current discussion to analyse the opinion and feelings of respondents about the VLE and its application. In order to conduct an in-depth analysis, the researcher of the respective study also conducts secondary research from different articles and journals. Implementation of VLE requires considering the most important factor, that is, a technology and how it can affect the learners. VLE has several benefits in social aspects and also has some barriers within the learning process. Therefore, educators and educational stakeholders need to focus on solutions. During COVID19, virtual learning can play an effective approach to reducing the limitation of learning and teaching.

Reference List

- Aljohani, N.R., Fayoumi, A. and Hassan, S.U. (2019) Predicting at-risk students using clickstream data in the virtual learning environment. *Sustainability*, 11(24), p.7238.
- Bogusevski, D., Muntean, C. and Muntean, G.M. (2020) Teaching and learning physics using 3D virtual learning environment: A case study of combined virtual reality and virtual laboratory in secondary school. *Journal of Computers in Mathematics and Science Teaching*, 39(1), pp.5-18.
- Carlotta Olivetti, E., Violante, M.G., Vezzetti, E., Marcolin, F. and Eynard, B. (2019) Engagement evaluation in a virtual learning environment via facial expression recognition and self-reports: A Preliminary Approach. *Applied Sciences*, 10(1), p.314.
- Chaim, O., Muschard, B., Cazarini, E. and Rozenfeld, H. (2018) Insertion of sustainability performance indicators in an industry 4.0 virtual learning environment. *Procedia Manufacturing*, 21, pp.446-453.
- Hantoobi, S., Wahdan, A., Salloum, S.A. and Shaalan, K. (2021) Integration of Knowledge Management in a Virtual Learning Environment: A Systematic Review. *Recent Advances in Technology Acceptance Models and Theories*, pp.247-272.
- Li, N., Wang, J., Zhang, X. and Sherwood, R. (2021) Investigation of face-to-face class attendance, virtual learning engagement and academic performance in a blended learning environment. *International journal of information and education technology*, 11(3), pp.112-118.
- Queiroga, E.M., Enríquez, C.R., Cechinel, C., Casas, A.P., Paragarino, V.R., Bencke, L.R. and Ramos, V.F.C., 2021. Using Virtual Learning Environment Data for the Development of Institutional Educational Policies. *Applied Sciences*, 11(15), p.6811.
- Tan, K.H., Chan, P.P. and Mohd Said, N.E. (2021) Higher education students' online instruction perceptions: A quality virtual learning environment. *Sustainability*, 13(19), p.10840.
- Yang, D., Alsadoon, A., Prasad, P.C., Singh, A.K. and Elchouemi, A. (2018) An emotion recognition model based on facial recognition in virtual learning environment. *Procedia Computer Science*, 125, pp.2-10.
- Tuttle, L. and Hansen, D. (2021) Arts education in a virtual learning environment: an introduction to the lessons, policies, budgets and practices from the COVID-19 era. *Arts Education Policy Review*, pp.1-2.

Hamid, Z., Peng, C.F., Shaharom, M.S.N., Ter, T.C. and Raman, K. (2018) The concept and use of the virtual learning environment in teaching: a literature review. *International journal of academic research in business and social sciences*, 8(6), pp.1293-1301.

Statista (2021). *Potential of online learning*. Available at <https://www.oecd.org/coronavirus/policy-responses/the-potential-of-online-learning-for-adults-early-lessons-from-the-covid-19-crisis-ee040002/> [Accessed on 28 March 2022]