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1. Introduction:

1.1. What is E-Learning (Electronic Learning):

E-learning (electronic learning) is a term that refers to a method of learning that integrates information and communication technology. It is easier to develop, implement, and share content when people learn in this manner.

This method encourages students to share views and information using ICT (Information and Communication Technologies) regardless of time constraints or geographical limitations. There are numerous resources that build up this new educational strategy; however, some of them are truly outstanding: utilities for presenting content (texts, images, images, videos...), and tools for asynchronous or synchronous contact between students and instructors, such as email, talk, forums, journals, and wikis.

In a nutshell, “virtual learning” is a representation of e-learning. It is a virtual interface that helps tutors and students to collaborate in an interactive, on-line environment to facilitate both teaching and learning. It is used for remote education through the World Wide. This method of learning is focused on telematic networks, which typically link students to the Internet.

1.2. The various types of Virtual courses

Virtual classes are classified into three categories based on the extent of the educational engagement between the instructor and the learner, as well as the time at which the interaction occurs.

1. Asynchronous online courses:

Online classes that are asynchronous do not take place in real time. Students are more self-directed and complete course work and tasks on schedule. Discussion forums, websites, and email, for example, are used to facilitate teacher-student contact. There is no set time for class meetings. Students with time constraints or busy schedules can benefit from asynchronous learning since it is versatile and efficient.

2. Synchronous online courses:

Synchronous online classes necessitate simultaneous online interaction between the teacher and the student.

In a virtual classroom, students receive instruction from their instructor and communicate with their classmates through messages, audio chats, and video chats. Synchronous learning experiences allows students to engage in a course in real time from the comfort of their own homes.

3. Hybrid online courses:

Hybrid online courses, also known as blended courses, enable students to connect both in person and online. Hybrid courses enable students to meet in person during the semester and allow for computer-based collaboration in between. As a result, hybrid simulated learning can be both asynchronous and synchronous.

1.3. Benefits of Virtual Learning Environment:

Digital education has many advantages for all stakeholders, including course providers, teachers, and students.

Digital education initially aids universities in expanding their scope to students who want to receive an education from a distance. As a result, it benefits the school in increasing student enrollment. In addition, virtual courses allow the institution to provide instruction to a substantial number of students through online lecturers and videoconferences. In certain situations, it allows in the reduction of staffing costs as well as the reduction in travel budgets for personnel mobility.

Virtual training and CALL applications, for instance, will clearly diversify implementation approaches, enriching faculty teaching interactions. To become acquainted with this modern method of teaching, it is normal for teachers to attend many training sessions and complete several hours of self-taught instruction.

Virtual education is well-liked by students because of its accessibility, cost-effectiveness, and ease of access. Students that take asynchronous classes will benefit from a more versatile scheduling that suits their limited time and place. Looking for open online programmes at a variety of universities around the world

2. Importance of Virtual Learning during Covid-19

Apart from the socioeconomic effect of COVID-19 and the reforms in healthcare delivery processes that have been introduced, it has also had an impact on all levels of schooling, from pre-school to tertiary education, mostly due to a reduction of workforce in all academic fields, as well as interventions to deter the epidemic from spreading.

Anticipating the future of education during the Covid-19 crises many online learning sites, including BYJU'S, a Bangalore-based educational technology and online tutoring firm established in 2011 are now providing free access to their services in response to high demand. BYJU has witnessed 200% rise in the total numbers of people whether students and teachers using Think and Learn platform since announcing free live courses, according the company's Chief Operating Officer.

Other businesses are also expanding their capabilities in order to include a one-stop shop for teachers and pupils. For instance, Lark, a Singapore-based collaboration suite that start providing institutions unrestricted video conferencing time, auto-translation capability, real-time co-editing of project work, and smart calendar scheduling, among other features, was initially created by ByteDance as an internal method to meet its own exponential development.

DingTalk, Alibaba's remote learning platform, had to brace for a similar influx: As per DingTalk CEO Chen Hang, "To facilitate a large magnitude of distance operation, the application tapped Alibaba Cloud to launch more than 100,000 new cloud servers in just two hours last month – setting a new milestone for accelerated bandwidth expansion."

3. Research Methodology:

For the research we used two sources of data, primary and secondary. The primary source incorporates the self-collected data and the secondary source consist of data from existing pieces of literature. The collection of all the facts and figures is carried out in a systematic way and will be analyzed over the target variables. Primary data collection is based on the research questionnaires, surveys and interviews with people selected for this research. Secondary data will include newspapers and articles, Google scholar for different related search papers. All the research papers and study material are based on the topic of "Virtual Learning Environment".

4. Literature Review

- 4.1. This paper examines the educational applications of virtual learning environments (VLEs) for learning, teaching, and entertainment. Author review current VLE studies focusing on virtual reality and augmented reality. The following are few examples for educational and simulation purposes. These examples demonstrate how a VLE can be used to improve, motivate, and stimulate learners' comprehension of specific events, especially those for which conventional instructional learning has proved ineffective or difficult. Users can also practice in a fun and efficient manner by playing in simulated worlds.
- 4.2. This analysis investigates at an integrated learning environment in a psychology undergraduate course. The face-to-face lecture was supplemented by a simulated learning experience (VLE). The VLE was created to assist students in their learning process and was made available to them on a voluntary basis. Data was compiled from consumers (N = 80) and non-users (N = 82) from two cohorts. A self-report was used to collect control variables such as demographic information, attitude toward the learning subject, computer literacy, enthusiasm, learning effort, and accessible infrastructure. The score on the final test was used as a learning result. The average score in the VLE was used as a measure of progress in the final exam for VLE users. VLE users were observed and categorized into two groups: 'medium' and 'heavy' users. The findings revealed that students who spent two or more hours a week on pre- and post-processing of lectures scored higher on the final exam than those who did not. Furthermore, the success of the 'heavy' users in the VLE was the best indicator of the final exam score. The findings are discussed in terms of self-regulated learning competence.
- 4.3. According to the authors of this study VLEs are commonly utilized in education and in several industries to provide teaching stuff and improve collaboration. This paper details the results of an online study of 248 2nd year pupils at an English sixth-form college on their use of virtual learning environments (VLEs) (SFC). This survey highlighted the observed effect of utilizing the college's VLE (Moodle) for learning purpose, and was mostly based on three basic questions which analyzed: if the utilization of a VLE improves student performance; if the utilization of a VLE in teaching and learning aids in the development of personal growth and learning; and if the utilization of a VLE improves students' encouragement.
- 4.4. According to the statistically significant results, using Moodle improves learning and incentive to learn, as stated by the student participants. Teachers would be interested in the results because they point to places where they can focus their efforts in order to promote the use of VLEs to improve learning. Teaching and studying in a virtual learning

environment (VLE) present some obstacles, but also opportunities to reconsider the whole process of learning, specifically in abstract subjects such as logic or high-level mathematics. In the other hand, the tools and methods of working that are now accessible in VLEs may soon be available in a variety of settings.

In this article, authors have discussed their experiences at the Open University of Catalonia (UOC), a specific VLE, with regards to the whole method of teaching logic and mathematics. We will also address some issues and propose some innovative projects made possible by current and near-future developments.

5. Data Analysis:

This research is based on an online survey of in total 20 students at our institute's VLE use.

The survey looked into the impacts of using a VLE on learning, and it was focused on the following questions:

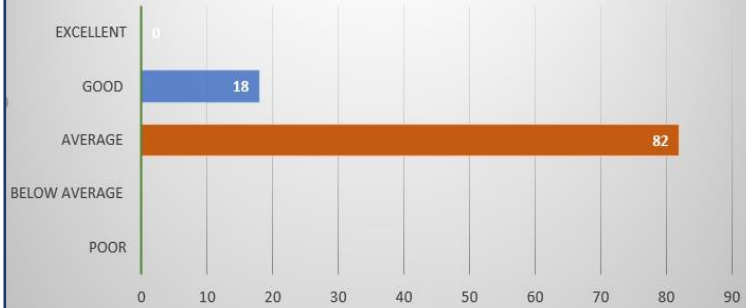
1. How you feel about overall distance education?
2. How helpful are your teachers on VLE?
3. Are you satisfied by learning online?
4. How well could you manage time while learning remotely?
5. Would you agree if VLE continued to operate after Covid-19 pandemic?
6. How helpful is UTWSD in offering resources to learn from home?
7. How effective is VLE for you?
8. Do you have access to a device for online learning?
9. What device do you use for online learning?

Following graphs are illustration of the survey study.

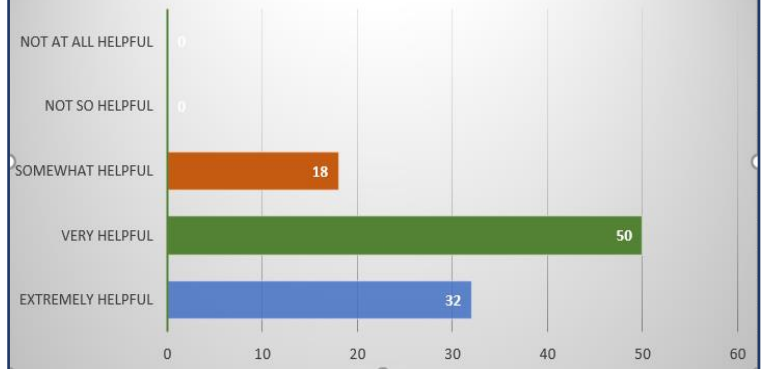
When it comes to the experience of remote education, students don't find it pleasing experience, according to them the basic thing VLE lacks is the absence of academic ambience, the interaction with students and teachers, the interaction with friends, and the physical environment that contribute to the overall motivation to study, so they rate the experience 'Average'.

As long as teacher cooperation is concerned so majority of the students find them very much helpful and supportive which is indeed a good sign to promote VLE among students, for other areas of research like satisfaction from VLE platform or time management, we find mixed responses, however, at some instances students do find VLE effective but the further research can only be improved with more time on VLE platforms.

How you feel about overall distance education



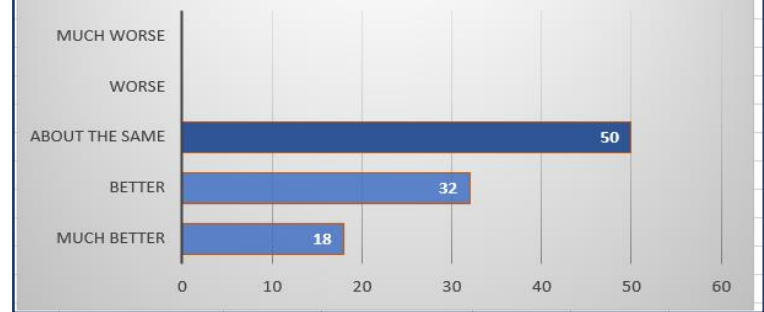
How Helpful are your teacher on VLE?



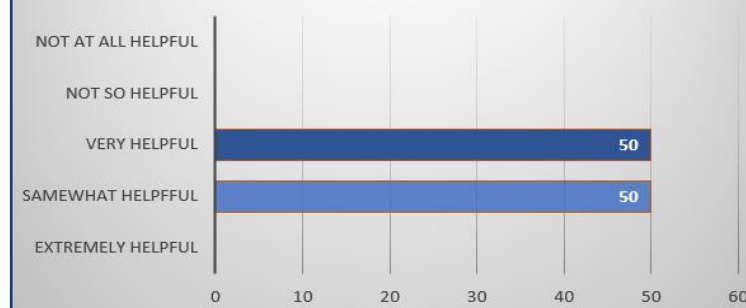
Are You satisfied By Learning online?



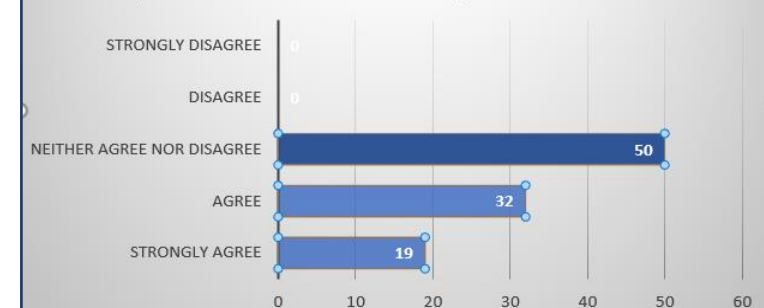
How well could you manage time while learning remotely?



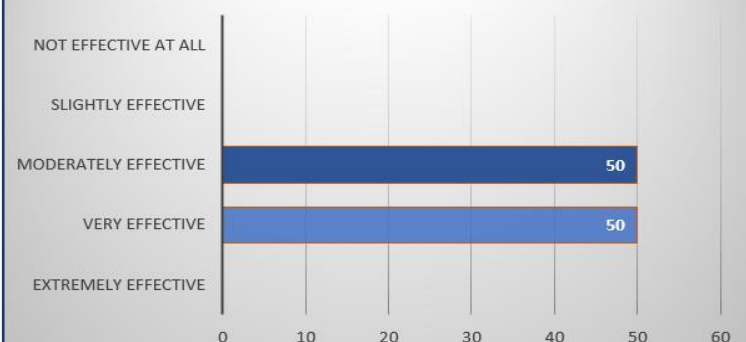
How helpfull is UTWSD in offering resources to learn from home?



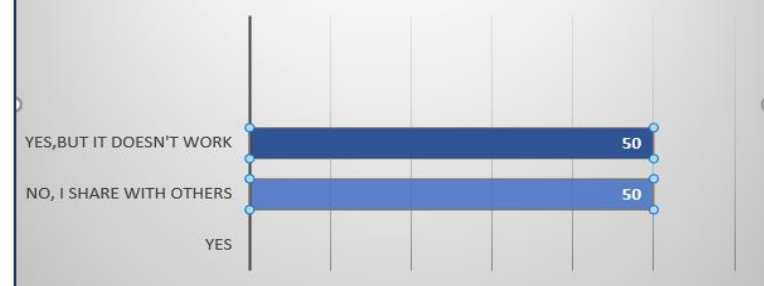
Would you agree if VLE continued to operate after Covid-19 pandemic?

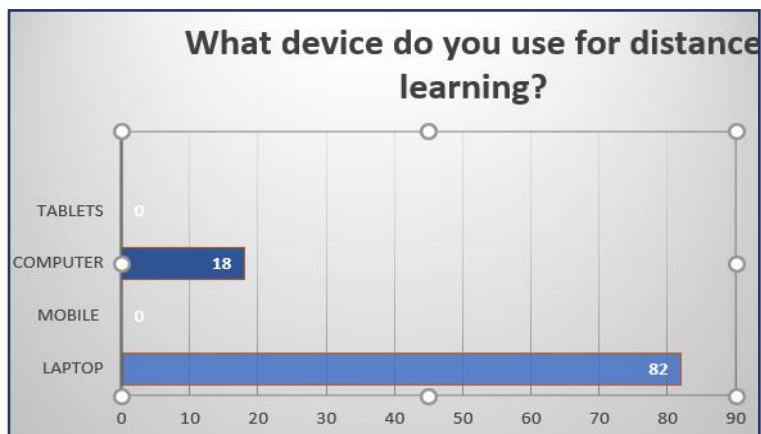


How effective is VLE for you?



Do you have access to a device for learning online?





6. Conclusion:

This study has given an overview on the idea of virtual learning and its types. We examine the benefits of VLE in terms of remote learning and lessen mobility of both teachers and students that saves a lot of their time, energy and transport expenses, we discuss the importance of Virtual Learning environment amidst the Covid-19 pandemic crises, and how different IT sectors are coming with their strong ideas of various applications and platforms to support VLE. The study also attempts to look at issues' students faced while getting familiar with VLE, we get mixed responses. Nevertheless, Virtual learning is not a novel concept; however, it is becoming a more common term in higher education's everyday normal life, and with no immediate end of Covid-19 in sight this platform requires greater recognition and sufficient commitment from the educational institution, the teacher, and the student.

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