Challenges And Advantages Of Online Teaching: The Role Of Applying Information Technology In Lectures And Classes

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Abstract

The advent of information technology has brought many positive effects to the development of education. Information technology and the development of the internet open up an extremely diverse and rich knowledge store for learners and teachers, making learning much simpler, improving the quality of learning and teaching. This article studies some teaching methods and recommends effective online teaching solutions, contributing to improving the quality of online training. The results show that this application still plays an extremely important role and is still considered an extremely effective solution.

Keywords: Benefits, information technology, difficulties, application.

1.Introduction

The focus of university teaching is to produce students capable of lifelong learning. Self-study and self-research ability of students after graduation is a measure of the effectiveness of the teaching process. To achieve such a goal, the teacher himself must be an enlightener. Currently, the complicated Covid-19 epidemic worldwide has impacted all aspects of social life, including educational activities at schools. Schools had to be temporarily closed, students did not come to school for a long time but did not stop learning, schools have conducted online teaching for students (Zylfiu et al., 2020).

To ensure the continuity of the training process while adapting to the requirements and requirements of the actual situation. In order to convert the form of learning from face-to-face to online learning through teaching application software, the lecturer must be proactive and active in finding the most effective university teaching method to used in teaching activities.

The ability of lecturers to adapt to the online teaching environment is an example for students of their ability to self-study in practical professional activities. The nature of teaching methods does not apply invariably to all levels, all circumstances, and all objects of students, but must be changed to suit the cognitive and psychological levels of students, teaching content and learning (Zylfiu et al., 2020).

A lecturer with a strong professional background and good pedagogy can flexibly change teaching methods to arouse creativity, learning motivation and development potential of students (Palvia et al., 2018). Lecturers combine face-to-face teaching methods and apply creativity to the online learning environment in order to promote the strengths and limit the shortcomings of the teaching methods. Choosing the right teaching method depends on many factors such as teaching content, teaching object, teaching environment, learning form, etc.

2.Literature review

The application of online teaching methods for students also faces many difficulties. One of the challenges is how teachers can effectively apply online teaching methods (Mupinga, 2005). With the desire to contribute to overcoming the above difficulties, in this article, the author focuses on researching a number of teaching methods and proposing effective online teaching and learning solutions to contribute to improving the quality of training in Vietnam. School.

From 2019 until now, the COVID-19 epidemic has had a very strong impact on all areas of social life. In particular, education is considered one of the areas most affected by many schools being forced to close to minimize the spread of the disease (Simamora, 2020). However, the reality shows that, in the process of implementing teaching activities, students still face many difficulties and barriers. Research results have shown that psychological, environmental factors and learning media/devices are considered to be the main reasons for students' online learning difficulties (Mitchell & Delgado, 2014).

Online learning when choosing to pay attention to the learning environment is something that should be kept in mind. With the right environment, creating the most comfortable feeling will definitely help the learning process get interesting, the acquisition of knowledge and information will also become more effective (Zylfiu et al., 2020). Therefore, before starting the lesson, choose an appropriate space that you feel is best to start your own study time.

3. Difficulties caused by the Covid-19 epidemic

Since the outbreak of COVID-19 in 2019, a turning point and great change in socio-economic life in most countries around the world, including Vietnam. Among them, education is considered as one of the areas most affected. According to statistics, the world has nearly 1.6 billion students and students affected; 188 countries were forced to close schools nationwide, affecting 91.3% of the total number of students worldwide. Up to now, Vietnam has experienced 4 outbreaks of Covid-19 disease in most provinces and cities across the country. like other countries, the Covid-19 pandemic not only has a strong impact on socio-economic activities, but also greatly

affects educational activities in Vietnam (Zylfiu et al., 2020).

Specifically, in 2020, when the first epidemic broke out in the country, all schools were forced to close and all students had to leave school to prevent the epidemic. In that context, in order to prevent the spread of the Covid-19 epidemic; while maintaining the quality of teaching and completing the program on schedule, ensuring the learning of students; Many schools have applied online teaching for most levels. In fact, the transition from traditional learning to online learning has created many challenges for students. Studies have shown some difficulties in learning space as well as psychological factors affecting students' learning efficiency (Palvia et al., 2018).

There are many students who think that there is no private space to study online and are often affected by noise, being disturbed by family members and feeling constrained, unable to travel. Along with that, psychological factors such as "Difficulty concentrating", "Lack of motivation" are also one of the barriers that students face when studying online. Besides, the interaction process between the teacher and the learner also partly shows the influence on the learning results of students. There are many students who think that teachers are not as attractive and lively as teaching directly in a traditional classroom (Ferri et al., 2020). Online learning is one of the advanced and developed learning models in many countries around the world, but the difficulties and barriers of this form are still very present. Because of this, many research works have been carried out to identify the adverse factors in order to overcome the barriers, towards improving the learning quality for this form of training (Ferri et al., 2020).

E-learning barriers are obstacles encountered in the online learning process, at the beginning, during and after the training is completed, that can negatively impact the learning experience of learners. Thus, identifying the difficulties and barriers of students in the online learning process is extremely necessary. In the past time, there have been many research studies that have identified the factors affecting learners' online learning. There are four barriers related to psychological, economic, social and technical.

There are also some limitations to the curriculum, including technology limitations, individual learner restrictions, and other limitations. For individual learners, the use of new technologies can be a disadvantage or barrier in an online learning program (Haider & Al-Salman, 2020).

The lack of information, communication skills, and technology can be barriers to online learning as learners may experience frustration from this unique learning environment. Meanwhile, the COVID-19 epidemic is in a strong outbreak phase and may be difficult to end in the future. Online learning may have to continue to be maintained to ensure epidemic prevention and maintenance of teaching, so it is necessary to have more studies related to online teaching and learning to clarify the picture. advantages and disadvantages of online learning and propose solutions to ensure the effectiveness of online teaching in schools.

3. Research Methods

The article uses a qualitative method, based on current and previous research papers, to compare data. The results are analyzed and then the solutions are also analyzed and effective solutions are found based on the existing solutions.

4. Certain advantages in applying science and technology to the online teaching process

The application of technology in teaching helps teachers to prepare lessons quickly through available lecture templates, and at the same time take advantage of many resources such as videos, images, electronic documents, etc. help attract learners and improve teaching effectiveness. Applications that help build popular lectures today include Powerpoint, which is a long-used software that allows users to edit on existing graphic templates or create their own. Lectures will easily integrate videos, images, etc. to help illustrate more visually and attract learners. The second is Canva, which contains ready-made graphic templates on many different topics, and also has videos, images, etc. to illustrate the lesson. Users can store lectures right on Canva or download them as Powerpoint (Zylfiu et al., 2020).
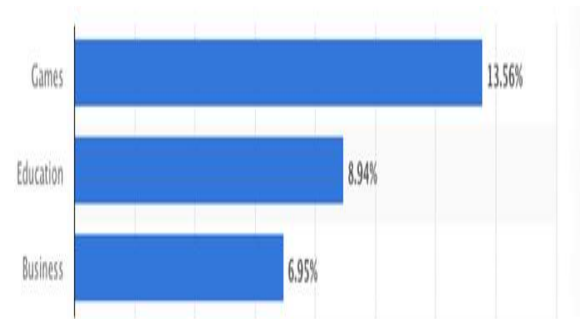

Figure 1. The most popular category on the App Store

Next is myViewBoard. myViewBoard allows users to use a huge store of videos, images, GIFs without worrying about copyright issues. Besides, the platform also allows you to create interesting games, helping to attract and increase the interaction of learners (Ferri et al., 2020).

We also need to use technology in classroom management. Class management application helps to statistics scores, evaluates the progress of each student and divides groups, manages the participation level of learners. Current prominent classroom management applications such as Schoology. This software allows to build records, manage lectures of teachers as well as assignments of learners. In addition, Schoology also creates a social network that helps teachers and learners share knowledge, skills and interact with each other outside the classroom. Next is Moodle. This system helps to send notifications from the school to learners quickly. Besides, it also provides features such as score statistics, assigning assignments, posting lessons, creating tests, surveys, surveys. Alternatively, we can use myViewBoard. myViewBoard is a management platform that helps assess the participation of each learner, capable of dividing groups for learners to exchange and discuss with each other. In addition, learners can raise their hand every time they want to speak, the system will send a notification to the teacher (Alruwais et al., 2018).

We can also apply exam organization and anti-cheating. Currently, many exams are held online, making it difficult for supervisors to monitor learners, so anti-cheat software is needed. The most commonly used software today like EduNow. It uses a camera that scans the face and ID card to confirm the identity of the test taker.

Then ask for a 360-degree camera scan to avoid someone assisting. In the process of using technology in teaching to test, the software will activate the Mic to record the exam process, completely block the copy feature and open a new tab, if there is a mistake, the test taker will receive a notification. system alarms (Ferri et al., 2020).

Next is Azota. This is a software that helps to score and return papers online, and is also equipped with automatic monitoring. If it detects that the examiner switches tabs, the software will notify and record the number of times the student exits the exam page and send it to the test supervisor (Almazova et al., 2020).

Technology allows teachers to better design lessons and manage classrooms, thereby achieving certain advantages. Lectures will be designed to be more intuitive and lively, so that learners can easily relate to reality and be absorbed in the lesson. Thereby, learners will actively visualize and remember the content of the lesson, and at the same time participate in the interaction and construction of the lesson, helping to understand the lesson better (Alruwais et al., 2018). Teachers and learners can no longer only meet each other in class sessions, but can exchange through forums, class groups, etc. When the class lectures are designed interestingly, it will help learners to interact more often, so that the teacher can also convey better (Arasaratnam-Smith & Northcote, 2017).
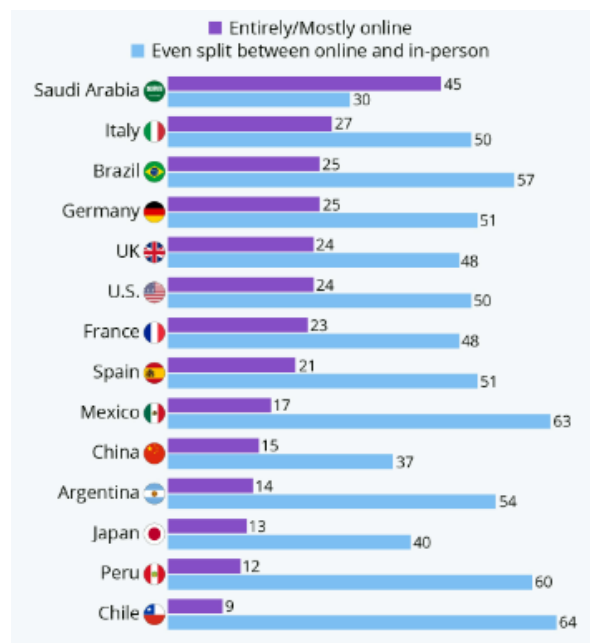

Figure 2. The form of online learning in the future

The application of technology will support special groups of learners who can learn in many different ways without being encapsulated in learning texts from textbooks. With technology, learners and teachers can join forums, groups, and classes to share knowledge and experiences. In addition, learners can pay to learn new knowledge from online courses, domestic and international online workshops, etc. (Alruwais et al., 2018).

Currently, under the influence of the Covid-19 pandemic, many educational institutions are forced to close school, leading to interruptions in teaching and learning. In that situation, online learning has gradually been prioritized to continue teaching activities, accordingly the application of technology is also increasing strongly. Lectures that are intuitive and visually appealing will help this group of people remember longer, therefore, they can understand and use knowledge more effectively. Learning by touch means acquiring knowledge faster if practiced, there are now tactile glove tools that can support this group of people, but have not been widely applied (Ferri et al., 2020).

However, learners can remember better by manipulating smart interactive screens, helping to understand shapes and how objects operate through 3D blocks. Auditory learners will

remember better if they hear the content repeated many times. So the feature of recording the lesson screen is very useful for this group, they can listen and ponder until they understand the content of the lesson.

5.Recommendations

Firstly, in order to overcome difficulties in the online learning process, the school needs to have policies or activities to support students in a timely manner to ensure that students' learning is not interrupted, especially, students who have difficult circumstances and/or living in remote areas with difficulty accessing and connecting to the internet. Second, improve the effectiveness of online education by making changes in teaching methods, teachers' access to technology, and the school's management and leadership capabilities. From the inadequacies in the process of interaction between lecturers and students, educational institutions need to pay attention to and organize training courses to innovate teaching methods to improve teaching quality in the future (Ferri et al., 2020).

Third, the school needs to pay attention to equipping students with skills in using information technology, information security skills, skills in exploiting and effectively using applications for learning activities. Fourth, lecturers need to increase interaction and exchange with students to create psychological comfort and excitement for learners. That is, teachers need to diversify teaching forms and integrate many activities in the curriculum to create interest in students' learning, create an environment for students to present and share their views (Coyner & McCann, 2004).

Information technology promotes an open education, helps people access multidimensional information, shortens distances, narrows all spaces, and saves optimally on time. Since then, people have developed faster in knowledge, perception and thinking. Open educational programs help people exchange and seek knowledge effectively (Alruwais et al., 2018). Accompanying open education are open learning resources, helping learners and teachers connect with knowledge effectively wherever they are and during any time period. Open learning resources are an inevitable development trend of modern education. In the past, the acquisition of knowledge was provided by books and teachers, but now, this diverse source of knowledge is provided online via an internet connection. The teacher is mainly the person who transmits knowledge. This plays a huge role in the educational innovation process.

6. Conclusion

Educational innovation must shift education from mainly imparting knowledge to developing learners' capacity, by helping learners approach and learn by themselves, and solve problems. The transmission and provision of knowledge will gradually be taken over by information technology, freeing teachers from the lack of time, so that teachers can focus on helping students approach and solve problems. , organize learning activities associated with practice to develop students' capacity. Information technology facilitates learners to learn and acquire knowledge flexibly and conveniently. People can self-study anytime, anywhere, can participate in discussing an issue where each person is far from each other, contributing to creating a learning society in which learners can study throughout. life. Besides, with the convenience of learning anywhere, anytime, information technology will create opportunities for learners to choose their favorite topics, suitable for each person's aptitude, from which develop to individual strengths due to the different composition of cortical subregions. That will promote the development of talents.

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