

Comparison of the Benefits and Drawbacks of Online and Traditional Courses

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Abstract. With the development of modern technology, like AI and the internet, online courses are gradually replacing traditional courses, which are widely used in many schools. However, online course also has many latent disadvantages that are not recognized by the public. This article discusses the advantages and disadvantages of online and traditional courses, respectively. The benefits of an online course are its flexibility and efficiency of knowledge transmission, while a traditional course provides a structured environment for study and gives more chances for communication between students and teachers. From these findings, this article suggests that these two teaching methods should be partially combined to reach the maximum learning efficiency and student satisfaction. There are two suggestions given, one of which is that online tools and platforms should be used in a traditional course to increase learning efficiency. The other is that structured environments need to be opened for an online course to reduce the effects of distractors.

Keywords: Traditional course, online course, learning efficiency

1. Introduction

In the 21st century, information technology has had a great impact on the way of education. With the widespread use of electronic devices and the accessibility of online resources, traditional classroom education is gradually replaced by autonomous and dynamic learning conducted through the Internet. According to Microsoft and PSB Insights, over 90% of American students use modern technology to assist them in completing school tasks, including searching for information and improving academic skills [1]. Many studies suggest that online education has more advantages than traditional one. First of all, online course provides students with relatively flexible schedule, which not only enables individuals from different backgrounds to study together but also allows them to make personalized study plans based on their needs. In addition, online tools used by teachers, such as PowerPoints and videos enhance the efficiency of knowledge transmission. However, other studies hold an opposite opinion that online education has many drawbacks. For example, student's attention can be drawn away by distractors in the environment, especially digital devices, which forces them to employ more serious self-discipline to complete the tasks before the specified time. Another drawback is that students will have fewer chances to cooperate and interact with peers, which may lead to a feeling of isolation. This article is going to start from these advantages and

disadvantages of online and traditional courses, and then compare the effects of these two ways of education.

2. Advantages and disadvantages of online courses

As online courses are widely used, especially during the COVID-19 pandemic when time and location were restricted, the advantages and disadvantages have gradually become apparent. This paragraph is going to discuss the flexibility and efficiency of online course followed by attention distraction and the feeling of isolation it causes.

2.1. Advantages of online course

2.1.1. Flexibility of online course

One advantage of online course is that it is very flexible in terms of content, time and place, which allows students to arrange their own study schedules in accordance with their situations. For example, individuals can review the lessons immediately if they miss or do not understand the content covered in class since many online course platforms have the functions of recording and replaying. This convenience will enhance student's satisfaction with online course. The viewpoint is supported by research findings of Akcay which indicate that the flexibility in terms of content, teacher contact and time management can effectively predict 60% of student satisfaction with online course [2]. The strongest predictor among them is the flexibility of content, explaining over 50% of student satisfaction. Another study providing similar results is by Alqurashi which states that flexibility in areas, such as time management and material accessibility, can increase student satisfaction with online course as well as their performance [3]. This happens because students can arrange their spare time for study instead of gathering together in a fixed place for class, which not only attracts students from different backgrounds but also decreases the tuition fees due to the reduction in venue and textbook costs. Therefore, one advantage of online course is the flexibility in terms of content, time and location, which can enhance student satisfaction level through providing personalized learning schedules and lower tuition fees.

2.1.2. Efficiency of using online teaching tools and platforms

Another benefit of using online teaching tools and platforms is that it can increase learning efficiency. Borodina et. al. classify online teaching tools into three categories based on their functions [4]. The platforms, such as Google Classroom, in first group are used for holding lectures, presenting assignments and exchanging opinions. The second group is responsible for online tests, like Socrative, while the third group, containing Zoom, is used as the medium for real-time meetings. Zaveri et. al. investigate students' opinion of learning efficiency when studying on online platforms [5]. The results indicate that 43% of participants agree that live lectures online are efficient when 46% of them hold the opinion that online platforms are useful. The findings also suggest that learning efficiency of online course is positively related to student performance and the usage of innovative concepts. However, this improvement in learning efficiency is highly related to the environment of online course. For example, students, who take online course in the structured setting, are more likely to acquire knowledge at a faster rate and receive higher grades due to fewer distractions caused by interfering objects like electronic devices, when comparing with those studying at home and in the dormitory [6]. Despite the limit of online class environment, it can still

be seen that different forms of online tools and platforms will increase the efficiency of learning and knowledge transmission.

2.2. Disadvantages of online course

2.2.1. Attention distraction

Apart from these benefits, online course also has its drawbacks. The most concerning one is attention distraction. Attention refers to a cognitive ability to focus on specific items, events and locations, which can be easily interfered by distractors coming from the environment due to its limitation. In the case of online course, there are many distractors naturally presenting, like phones, snacks and pets, because people usually do not have strict restrictions on the online learning environment. Among all the interfering objects, mobile phone has been considered as the greatest threat to attention, which is not only because it has sound or vibrate notification but also due to the actively use for non-class purpose, such as texting and entertaining [7]. The study states that the frequent usage of digital devices will impair academic performance [8]. 94.8% of the subjects report that the distraction caused by digital devices in daily life, like receiving messages and checking social media, will negatively affect their academic performances to some extent, among which 46% often fail to submit assignments before deadline. Another significant finding of this study is that it takes a long time, around 15 minutes, to refocus attention on school work after the distraction happens. From this, it is clear that the distraction, especially caused by digital devices, will have a negative impact on academic performance, which is more common in online courses. This negative effect requires students to put more efforts into self-discipline in the aspects like achieving class objectives, completing learning tasks within the specified time and getting higher marks. Therefore, one disadvantage of online course is that there are many distractions interfering attention, which require students to be more self-disciplined.

2.2.2. The feeling of isolation

Another disadvantage of online course is that students are more likely to experience social isolation after a long period of online education, just as those happened during COVID-19 pandemic. This isolated feeling is caused by the physical separation of teachers and students, as well as between peers. Croft et. al. suggest some areas where the feeling of isolation is experienced during the online course [9]. For example, the inconsistencies of time and location will increase social isolation by creating a sense of distance. The feeling of isolation will also rises when facing communication, understanding and technical issues. This feeling of isolation will have a negative impact on school; performance. Firstly, social isolation during online course will lead to more class withdrawal and lower grades at a significant level compared with face-to-face one [10]. In addition, Alsawaier indicates that individuals, who score high on social isolation scale, are less likely to engage in discussion and submit assignments on time [11]. Therefore, another disadvantage of online course is that it can create the feeling of isolation, which negatively influences academic performance and engagement.

It can be concluded that online education has both benefits and drawbacks. The flexibility in terms of content, time and location increases student satisfaction with online course by providing personalized schedules. In addition, the use of various online tools and platforms will enhance learning efficiency. However, attention distraction and social isolation caused by online course will impair academic performance and engagement of students.

3. Advantages and disadvantages of traditional courses

Despite the flexibility and efficiency brought by online course, traditional course still has its irreplaceable benefits. For example, it can provide a structured environment where discipline is emphasized and most of the interfering objects are eliminated. It can improve the ability of social interaction and teamwork by providing opportunities for face-to-face communication at the same time. However, traditional course has inevitable shortcomings. For example, it mainly relies on passive learning rather than developing practical skills. Traditional course also limits personalization where students fail to get enough support and attention from their instructors. These benefits and drawbacks of traditional course will be discussed in the following paragraphs.

3.1. Advantages of traditional course

3.1.1. Providing a structured setting

In almost all schools, traditional course is conducted in a fixed and structured setting, such as classroom and lecture hall, where many regulations are formulated and followed. This is an advantage because discipline is emphasized and interfering objects are eliminated. First of all, traditional course can promote discipline by establishing clear expectations, goals and routines where students can become aware of what kinds of behaviors are accepted and expected. Through this gradually formed constraint, individuals are more likely to be motivated and manage themselves for academic achievement. Li and Zhang state that a structured setting provided by traditional course can significantly enhance time management and self-discipline skills when comparing with online course [12]. In addition, traditional course can also eliminate unnecessary interfering objects that will negatively influence students by distracting their attention. Most schools have strict rules prohibiting the bringing of unrelated items into classroom, especially the use of electronic devices like laptops and mobile phones. According to Sana et. al., individuals in traditional class where fewer electronic devices are used perform better in sustained attention and retention [13]. Therefore, one benefit of traditional course is that it provides a structured setting where discipline is promoted and irrelevant interfering objects are eliminated.

3.1.2. Providing chances for face-to-face communication

Another benefit of traditional course is that it offers opportunities for face-to-face communication which can improve the ability of social interaction and teamwork. First of all, traditional course can enhance the ability of social interaction. By interacting with peers, individuals can practice social skills, such as collaboration and conflict resolution, while relieving emotions to maintain psychological well-beings. Vlachopoulos and Makri find that, compared with online course, individuals in a face-to-face environment have significant improvements in collaboration and verbal communication [14]. They are also very sensitive to non-verbal information like eye contact and active listening. In addition, traditional course can improve teamwork skills. Apart from collaboration and communication skills included in social interaction, teamwork skills also contain problem-solving and decision-making. These ask group members to actively participate in group tasks by solving the problems appear within groups and contributing to make informed decisions. Johnson et. al. indicate that group projects and peer feedback offered by traditional course significantly improve teamwork skills like role delegation and accountability [15]. Therefore,

another advantage of traditional course is that it provides chances of face-to-face communication where the ability of social interaction and teamwork is enhanced.

3.2. Disadvantages of traditional course

3.2.1. Passive learning

Despite the benefits that traditional course provides, it still has disadvantages. One of them is that traditional course may lead to passive learning which is a learning process where students passively acquire knowledge from their instructors rather than actively engaging in it. This learning process commonly presents in traditional course due to the limitations of resources and the solidification of cognition. The reason why passive learning is a drawback is that students merely receive conceptual knowledge without developing skills that they need in the future life. In an information technology era, skills like critical thinking, creativity and innovation are very essential which cannot be trained by traditional course. According to Arum and Roksa, lecture-based traditional learning can restrain the development of critical thinking due to fewer chances for questions and feedbacks [16]. Beghetto and Karwowski suggest that there is a significant correlation between standardized traditional course and decrease in creativity, which is due to high exam pressure, one-way transmission of knowledge led by teachers and consistent evaluation criteria [17]. Therefore, it can be seen that passive learning is one disadvantage of traditional course since it impairs the development of skills needed in the 21st century, such as critical thinking and creativity.

3.2.2. The limits of personalization

Another disadvantage of traditional course is that it lacks personalization which refers to an educational approach where the learning styles of individuals are decided based on their needs, strengths and interests. It is an essential factor since personalized learning style can increase learning efficiency. Students, who use personalized learning styles, have a 30% increase in learning efficiency with a 28% decrease in the rate of forgetting in one month [18]. This is because, based on the study, the difficulty of the learning tasks can be adjusted while real-time feedback is provided. However, personalization cannot be completely applied in traditional course since monitoring and evaluating each individual requires a great deal of instructor's effort. Students may not get enough help and support from their instructors due to this limited attention and mental resources. Tanner and Allen find that almost 40% of students do not get enough help when facing difficulties, which is due to reasons like anonymity effect, time availability of instructor and peer pressure [19]. Therefore, another disadvantage of traditional course is that it lacks personalization, though personalized learning style can raise learning efficiency.

It can be concluded that traditional course has both benefits and drawbacks. One advantage is that it provides an environment where discipline is emphasized and most of the interfering objects are eliminated. Another advantage is that it improves the abilities of social interaction and teamwork, such as collaboration and role delegation. However, due to the limitation of instructor-based teaching style, traditional course has the drawbacks like passive learning and the limits of personalization. Individuals in this situation have fewer chances to develop their skills, like creativity and critical thinking, and cannot get enough support based on their needs when facing difficulties.

4. Discussion

In the previous content, the advantages and disadvantages of online and traditional course are discussed and evaluated. Online course has its benefits that it is flexible in terms of time, place and content and using online tools and platforms can raise learning efficiency. Unlike online course, traditional one is restricted to a fixed time and place where students have chances for face-to-face communication. This forms its benefits that individuals can not only become more self-regulated towards learning objectives and less affected by distractors, but also develop skills, such as communication, collaboration, role delegation and accountability.

There are many suggestions that can be given based on these benefits to maximize learning efficiency and student satisfaction, which can be achieved by partially combining traditional and online courses. One suggestion is that more technical tools and online resources should be used in traditional course to formulate more personalized learning plans. Modern technologies, like Artificial Intelligence, can track student's learning progress and choose exercise from an appropriate range [18]. Luckin et. al. indicate that using personalized learning system, including adjusted assignments and real-time feedbacks, can increase 40% of speed of knowledge acquisition and reduce 60% of time wasted for non-effective learning [20]. Therefore, one suggestion is that online tools and recourses should be used in traditional course settings to enhance learning efficiency by formulating personalized learning plans.

Another suggestion, which can increase learning efficiency, is that relatively structured settings, like library and empty lecture rooms, should be provided to students for online course in order to reduce the negative influence of distractors. The inherent rules and regulations of these locations can effectively reduce distractors. For example, the mobile phone should be set to silent or vibration model in most libraries, which can significantly reduce attention distraction during online course. According to Liu et. al., compared with students who study in the dormitory, those studying in the library have a 42% increase in the duration of attention and a 63% decrease in the frequency of task switching [6]. Therefore, another suggestion is that relatively structured areas should be opened and provided to individuals with online course in order to enhance learning efficiency.

5. Conclusion

In conclusion, this article have discussed the benefits and drawbacks of online course and traditional course in the context of information and technology and proposed two suggestions to enhance learning efficiency and student satisfaction by comparing these advantages. Firstly, online course has its benefits and drawbacks. The advantages of online course are the flexibility in terms of place, time and content, and the increase in learning efficiency when using online tools and platforms. The disadvantages are the distractors, like electronic devices, naturally presenting during online course and the feeling of isolation caused by long-term lack of face-to-face communication which will negative affect academic performance and engagement. In addition, traditional course has its benefits and drawbacks. The benefits of traditional course are that it provides a structured environment without interfering objects and gives chances for face-to-face communication which can improve the ability of social interaction and teamwork. The disadvantages of traditional course are determined by its characteristics which is a instructor-based teaching style. This leads to a passive learning style where students lack opportunities to practice necessary skills like creativity and critical thinking, and the reduction in personalized learning and immediate supports for students facing difficulties. Two suggestions are given based on the comparison of the benefits. Firstly, online tools should be used in traditional course to formulate more personalized learning plan by tracking

and evaluating individuals. In addition, structured setting, such as library, should be opened and provided to students for online course in order to reduce irrelevant distractors.

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