

The Influence of Science and Technology on English Education

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Abstract. With the development and progress of science and technology, the impact of science and technology on education has increasingly attracted widespread attention in society. Focusing on the field of English education, the application of science and technology is conducive to promoting the teaching and learning of English. However, there are also negative effects of technology on English education. This study analyses the impact of technology on English education based on some surveys. It is found that technology has a certain promotion effect on teachers' teaching and students' self-learning. However, for poor areas, the use of technology is inefficient. Also, technology can cause the problem of over-dependence of teachers and students. Based on the above negative effects, this study suggests that micro-teaching videos can be used in rural English classrooms. Teachers should be good at identifying the authenticity of information on the Internet and know how to use and draw on the information. Teachers should also work with parents to guide students to use technology correctly.

Keywords: Technology; English education; effects.

1. Introduction

The impact of technology on education has become a social issue of concern to both parents and schools. Accompanied by the development of the Internet, AI, big data and cloud computing technology, more and more changes are taking place in the field of education. The deep integration of science and technology with education is changing the way traditional teaching is organised, breaking through the limitations of time, space and scene. Focusing on the field of English education, for the many pain points in current English teaching, the technical application of science and technology helps teachers to carry out intelligent teaching management, achieve personalised and efficient learning for students, and to promote fairness of education. However, technology not only promotes the development of English education, but also its negative effects can not be ignored. How to scientifically and objectively evaluate the impact of technology on English education? The discussion of these issues is very meaningful to scientific English education and the use of technology. Based on some surveys to analyse the impact of technology on English education, this study tries to put the hot social issues that schools and parents are concerned about under the test of objective facts and put forward relevant suggestions.

2. Impact of Technology on English Language Education

2.1. Positive Impacts

2.1.1. Teachers use technology in teaching

Because school education has the advantages of being systematic, comprehensive and collective, schools are the most important place in the educational and teaching chain of educational activities. Technology is also widely used in school education. For example, large-scale basic informatisation technology facilities, multimedia equipment and informatisation assessment of teaching effectiveness. Some scholars have put forward the information technology teaching model (APT teaching model for short), which is evaluation-led and integrates teaching methods and technology tools in the information technology environment, and advocated the information technology teaching concept of



"assessment for learning", the information technology quality training of teachers, and research on information technology in teaching [1]. First of all, technology can improve the interaction between teachers and students and cultivate the learning style of mutual support. Teachers can transfer the traditional classroom to the screen through technology, making teaching more intuitive, personalised and fun [2]. Technology teaching increases the classroom experience thus stimulating students' interest in learning and improving classroom efficiency. Traditional teaching, the knowledge of information towards a single and slow feedback, in the process of "teaching and acceptance", for the acceptance of the knowledge of the recipient, the knowledge of the depth of mastery can not be directly fed back to the teaching staff, and the actual feedback process for a long time. At this time, the student's memory and use of the information received will also have with the growth of time and varying degrees of forgetfulness, resulting in poor educational results. Information technology allows for timely feedback and rapid and accurate information supplementation in response to the feedback [3]. For example, in primary and secondary school classrooms with the help of tablet computers and teachers interconnected, through the software, the use of classroom practice mode test, greatly stimulates students' interest in learning at the same time, through the pre-setting of the software, can quickly and accurately reflect the mastery of the content of each student. The software analyses and organizes the learning status and shows it intuitively and quickly in front of the students, which is not only conducive to letting the students find out their own shortcomings, but also conducive to the teachers' ability to pay attention to each student in the actual classroom, and to adjust their teaching methods.

2.1.2. Students use technology for self-study

Students often face a number of problems in self-learning, such as a lack of initiative in learning, a lack of resources for independent learning and a lack of evaluation mechanisms. The development and innovation of science and technology can effectively solve these problems, making education "anytime, anywhere, and in a variety of ways". The traditional classroom learning mode is subject to certain time constraints, especially since students have to learn English within a limited time. At the same time, the space for students to learn is also subject to certain restrictions, which brings certain inconveniences to students' learning of English. The "E+C" learning mode of primary school English is a teaching mode based on the background of the Internet. In this mode, students are the masters of learning and hold the initiative of learning. In teaching, teachers should cultivate students to be able to make full use of the Internet and take the initiative to study the textbook online and offline, so as to efficiently master more learning skills and knowledge content [4]. As a new form of classroom expression, microclasses are one of the ideal means for students to learn independently, as they are characterised by a short time, concise content and clear themes. The application of microclasses in high school English teaching is easy for students to remember. Microclasses can stimulate students' interest in learning, prompt them to broaden their thinking in the process of knowledge exploration, and achieve the cultivation of innovative ability. Microteaching also effectively improves their independent learning quality and promotes the process of English teaching reform [5]. Students of all ages have benefited from the development of technology and are more inclined to use it for learning. A study investigated the acceptance of undergraduate students at Mara Craft University, Seremban Campus to use Microsoft Teams to learn English. The findings of the study showed that the students positively accepted the use of Microsoft Teams which is also known as a popular e-learning platform especially catering for English language subjects to learn English language [6].

2.2. Negative Impacts

2.2.1. For deprived areas

The continuous renewal of technological products reduces the ability of lagging regions to catch up. UNU scholars have done some policy experiments in South Asia, such as taking technology that has been phased out by software companies such as Microsoft and using it to improve education in poor areas. Poor regions want their students to get the same technological starting point as other regions, but the investment can't keep up, and the software for learning is already way behind at the beginning.

This is a very serious problem. Improving education through technology is not just about investing in technical equipment. Every technological tool has to be maintained by matching technicians - who live in developed areas. For example, the maintenance of computers. In some rural primary schools, the teachers have computers, but they don't work because there is a lack of technicians to maintain them, so the use of technology is often not as efficient as it should be [7].

2.2.2. Overdependence of teachers

The greatest function of modern educational media is the presentation of information about specific things, such as the colour, sound, and form of things. This belongs to the knowledge of direct and observational experience. However, learning English is not only about learning pronunciation, more important is developing students' language and thinking skills. If teachers rely too much on the Internet to teach, it will limit students' imagination and creativity. Students are often exposed to superficial and intuitive information which deprives them of the opportunity to train their thinking, which is not conducive to the cultivation of language ability [8].

2.2.3. Overdependence of students

A study asked 58 high school students to write essays describing what it would be like to live in 2035 or 2040, with a focus on the technological environment. However, it is worth noting that 24 of the essays did not include any negative impacts of technology [9]. This is a reflection of the fact that many students are blinded to the fact that the internet has only advantages. This can lead them to become overly dependent on the Internet for learning and instead lose their autonomy and independence in learning. Worse still, students with low discernment skills may believe that there is a lot of wrong and harmful information on the Internet or even face personal privacy and security risks. Students with low self-control may become addicted to video games or social media while studying, which may affect their learning, social and physical health, or even mental health.

3. Suggestion

Rural schools are provided with relatively simple teaching and learning facilities, and the physical and pedagogical conditions are relatively outdated. Students are unable to thoroughly master and apply the difficult English content due to poor learning experience. Micro-teaching video teaching has relatively low hardware requirements and can be applied to rural English classrooms. It can not only help students gain teaching experience, but also stimulate students' interest in learning English and improve their comprehensive quality [10]. The government should pay attention to the development of science and technology in education in backward areas and increase the economic support for schools in backward areas. The government should help them to make up for the shortcomings and provide backward schools with new technical equipment resources. And the government should also be in the backward areas to train matching technology maintenance personnel. Teachers should be good at identifying the truth and falsehood of the information on the Internet, and should know how to make use of and learn from the information without being controlled by the information on the Internet. Teachers should improve the knowledge reserve of science and technology and prepare to grasp the scientific core experience behind science and technology [11]. Teachers should also inherit and develop the essence of traditional teaching and learning methods, and integrate traditional teaching with technological teaching. For young children, parents and teachers should guide them to conduct useful learning and ensure that the content is suitable for their physical and mental development. Parents should also set reasonable times and rules for Internet use to ensure that children's learning and rest are balanced. For older students, it is important for them to be more discerning and aware of Internet safety, and not to rely too much on the Internet.

4. Conclusion

This study found that technology makes teaching and learning more intuitive, personalised and fun. Teaching with technology increases the classroom experience thereby stimulating students' interest

in learning and improving classroom efficiency. Technology can also encourage students to broaden their thinking in the process of knowledge exploration and realise the cultivation of innovation ability. Technology effectively improves students' independent learning quality and promotes the reform process of English teaching. At the same time, technology has a negative impact on English education. For poor areas, the continuous renewal of technological products reduces the ability of backward areas to catch up. Meanwhile, teachers' over-reliance on Internet teaching will limit students' imagination and creativity. Students' over-reliance on Internet learning will lose their independence in learning and even affect their physical and mental health. Therefore, micro-teaching video teaching has relatively low hardware requirements and can be applied to rural English classrooms. The government should pay attention to the development of science and technology in education in backward areas, increase the economic support for schools in backward areas, as well as supporting maintenance personnel. Teachers should know how to draw on and make use of information, inherit and carry forward the essence of traditional teaching and learning methods, and integrate traditional and technological teaching. Parents and teachers should guide their children in the proper use of technology and ensure that the content is appropriate for their physical and mental development. Students themselves should also improve their ability to recognise and be aware of internet safety and should not rely too much on the internet. This study scientifically analyses the impact of technology on English education, which is beneficial to society's correct understanding and use of technology in English teaching.

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