

English Informatization Teaching in Colleges and Universities in the 5G Era

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Abstract: With the coming of 5G, English teaching in higher learning institutions is facing a lot of opportunities and challenges. 5G is characterized by high-speed, low-latency, wide-connection and large-capacity, which is suitable for English teaching in higher learning institutions. Therefore, in the age of 5G, it is necessary to reform the mode of English teaching, to take full advantage of the advantages of the Internet, to build an informational teaching environment, and to arouse students' enthusiasm and initiative. The experiment results indicate that in the 5G age, the teaching quality of English information teaching can be up to 93.4%.

1. Introduction

Along with the development of Internet technique, 5G has been widely used in every field of our society. The appearance of 5G has not only given us a high speed, stability, and large volume of the Internet, but also gives us the chance and the challenge. With the advent of 5G, great changes have taken place in our daily life. Large Data, Cloud Computing and Artificial Intelligence are emerging. Higher learning institutions, as a key location to train and transfer society personnel, should advance with the time and speed up the information building of education. The teaching of English is a kind of linguistic discipline. It demands that the teachers should give full effect to the teaching of English, so that they can acquire English knowledge and techniques. English teaching has a vital effect on the training of talented people in higher learning institutions. With the further development of educational reform, English teaching in higher learning institutions is becoming more and more information-based.

In recent years, many scholars and experts have conducted research on English teaching in colleges and universities. Among them, Galante and Angelica conducted semi-structured interviews with teachers, reasoning and analysis of students, classroom observation of students, and inductive analysis of students. This finding provides many useful suggestions for foreign language teaching, such as: stimulating students' enthusiasm, cultivating their safe environment, etc. [1]. Thi Ngu, Duong presented two examples of using English in the teaching of history and economics courses in universities, and proposed an effective teaching method using case-based teaching methods to improve the teaching level of schools, colleges and universities. This method enables students to

discuss in an open way of thinking [2]. Sun, Zhuomin developed an online intelligent English classroom teaching system based on deep learning, which provides a new teaching method for English classroom teaching, enabling students to carry out effective classroom teaching according to their own characteristics. It has been verified by experiments that the system he proposed can effectively improve students' English learning effect and can better guide the teaching content. In addition, the system provides a sample model in which similar methods and referenced definitions are used [3]. Nadezhda, Guzachchova raised issues related to the use of effective educational technologies in distance learning of foreign languages at universities. He analyzed the use of zoom technology in medical education, identified the current problems of introducing distance learning technology in English teaching for medical students, and introduced the distance learning experience of electronic educational resource Zoom on foreign language teaching for medical students [4]. Li, Feipeng discussed the feasibility of college English teaching [5]. The above literature is very thorough in the research on English teaching in colleges and universities, but it may be better if information-based teaching is introduced.

Combining 5G technique with English instruction will bring into play its own superiority, which will push forward the development of information education in higher learning institutions. Firstly, 5G is fast, low-delay and wide-connectivity, so it can satisfy the requirement of English language instruction. Next, 5G will bring the class to the Internet, which will offer more interaction between teachers and students. Last but not least, 5G will be able to satisfy the requirements of English teaching. So it is necessary to carry out information education in higher learning institutions from the reformation of class instruction mode, fully utilize the superiority of Internet, and enhance the information education environment.

2. The Positive Impact of 5G Technology on English Information-Based Teaching in Colleges and Universities

With the development of 5G, a high speed Internet environment has been set up for English language instruction in higher learning institutions. In the age of 5G, people can get online information at any time and place, which offers an easy online environment for English teaching. Meanwhile, 5G has the features of ultra-low delay and super high speed. It is an effective solution to the difficulties in education [6]. In the course of English reading, it is possible for the teachers to include multi-media courseware in the pre-lesson, so as to make them have a full view of the text and enhance their comprehension of the text. Teachers can also use on-line QA to deal with the students' difficulties during their reading [7].

In the 5G age, teachers can send books, photos and videos on the Internet, which will give them more options when they study English. Moreover, the teacher may also make an on-line curriculum in accordance with the educational goals and the requirements of the students. Let's say, if you study a Chinese cultural or traditional holiday in English, you will be able to show some pictures or animated films on your cell phone or tablet, which will help you to know more about the Chinese culture. In addition, 5G will enable the development of on-line testing and simulated experimental systems for students to offer individualized study services [8].

In the age of 5G, students will be able to use their cell phones or tablets to gain access to the Internet at any time and any place. To satisfy the demand of English curriculum resources, can make a variety of curriculum resources based on the basis of English study and capability. Examples include: development of an on-line tutorial system for English learners with weak English skills, development of on-line examination system for English learners with excellent English skills, and development of Virtual Simulation Experimental System for Students with English Background [9].

With the development of 5G technology, there is a great improvement in internet coverage. Teachers are able to transfer new curriculum and knowledge to their students at any time. Students can study related knowledge by means of multi-media equipment in information education, and they can finish their assignments on the Internet by cell phone or tablet. Furthermore, 5G will enable students to engage in on-line study and interaction at any time at any time. Teachers can lead the students to study English by using their cell phones, tablets, etc. [10].

Because of its super low delay and super high speed, 5G network can transfer and deal with large scale data in the cloud. To satisfy the requirement of English learning in all grades, can make use of 5G technology to make on-line curriculum resources such as on-line curriculum resources, on-line videos, and simulated experiments. In the age of 5G, can conduct all kinds of English interaction with our students through Internet [11].

3. The Negative Impact of 5G Technology on English Information-Based Teaching in Colleges and Universities

As 5G continues to develop, it has become more widely used in English instruction in higher education. However, there are still many questions in practice.

Firstly, it is necessary to apply 5G technique to English instruction in higher education. Though 5G has many advantages such as high-speed, low-delay, wide-connectivity, large-capacity, it is effective to increase the teaching efficiency and the teaching quality. Take 5G for instance, it is very demanding on the teaching staff, and it is necessary for teachers to be proficient in IT and literate in order to guarantee the quality of the Internet [12]. But in practice, there are a lot of teachers who fail to renew their IT tools in time, which may lead to poor quality or late renewal of some resources. Moreover, there are some shortcomings in the 5G technique, for example, the rate of data transfer is too low, the signal is not stable, so it is easy to make the network jam and stammer. Under these circumstances, students tend to be distracted and inefficient.

The 5G technique is characterized by high-speed and large-capacity, which can satisfy the demand of English language. However, in practice, there are many students who tend to be addicted to on-line games or other forms of recreation and cannot get out of it. Particularly since 5G has been applied to English language instruction, it is necessary for the teachers to handle their own problems and problems, which will have an adverse effect on their English study [13]. Meanwhile, the fast developing of 5G will bring about some influence to the English information education environment. The English information education environment in a number of institutions of higher learning has fallen behind or can't satisfy the learners' study demand.

The traditional class instruction takes the teacher as the core and the black board as the core. But with the development of 5G, the teacher is not the central and leading role of the class, but rather a node or a fictitious figure in the net. So, instead of being the giver and organizer of the class, they have been the key players in the study [14]. In some degree, the traditional class instruction model can enhance the learners' initiative and passion, but it will also affect the traditional teaching model.

All in all, 5G has its own merits and developing foreground, but it still faces a lot of questions in practice. So, it is necessary for English teachers to pay more attention to how to fully utilize the superiority of 5G in order to advance the innovative and developing of information education in higher learning institutions.

(1) Teachers need to alter their ideas. 5G is a new mode of education. Teachers can fully utilize 5G technology in class, construct information learning environment, and share resources. So, in 5G times, English teachers in higher learning institutions must transform their ideas, innovate bravely, and seek out a new type of IE [15].

(2) Enhance the education of teachers. Nowadays, the English information education in higher

learning institutions has become an important issue for English teachers. So in 5G times, it is necessary to enhance the cultivation of teachers in English information education in higher learning institutions. Firstly, it is necessary to develop a variety of web-based training activities to enhance the knowledge and comprehension of 5G. Second, it is also possible to employ those who have abundant experience, advanced education ideas, and highly informative instruction [16].

(3) Enhance the information accomplishment of the students. Under these circumstances, the students are expected to possess a high level of IT and be able to learn independently. In practice, it is necessary to enhance the learners' autonomous study capability and develop their internet use habits in order to enhance their IT and their independence. [17].

4. Effective Strategies for College English Teaching in the 5G Era

In the age of 5G, it is necessary to enhance the students' English proficiency, to optimize the information learning environment and to enhance the teaching quality. Based on 5G technology, it is possible to overcome the limitations of time and space, to offer more study resources and study chances for students, and to satisfy their personal demands. Firstly, the 5G technique can be applied to English instruction in order to make the learners enjoy the pleasure of English study. Take the 5G technique for the production of the multi-media software, and make it possible for the students to learn more about the related information by playing the video or audio source. Second, the 5G technique can enhance the competence and level of the teachers based on information [18].

The 5G technique is characterized by its high volume and low latency. It has some superiority in enhancing the capability and level of information learning for teachers. The English courseware can be posted on the Internet, and it can be used for real-time interaction with the students. Teachers can also release assignments and test materials on the Internet, and let them know what they are doing. Meanwhile, teachers can conduct individualized learning with 5G technology [19]. Based on the 5G technique, students can use the Internet to exchange information with their teachers. Teachers may also make adjustments in accordance with the practical requirements of the students. At last, it is necessary to enhance the monitoring and evaluation of 5G in English teaching.

It is necessary to establish related evaluation system and criteria, and to enhance the monitoring and evaluation of teachers. As an instance, it is necessary to set up a specific evaluation criterion and evaluation program when using Web technique in English Information Teaching in 5G Age. Meanwhile, should set up a sound supervisory and administrative system and a system of incentives and penalties for the supervision of the teachers and students. Only by doing so, can enhance the effectiveness of information education in higher education [20].

5. Application Results of English Informatization Teaching in Colleges and Universities in the 5G Era

The article first takes teachers as the test objects, and evaluates the application results of English information-based teaching in colleges and universities from the perspectives of teaching quality and teaching efficiency. Among them, the teaching quality is shown in Figure 1, and the teaching efficiency is shown in Figure 2 [21].

It can be seen from Figure 1 that in the previous traditional teaching mode, the highest teaching quality was 88.8%, and the calculated average teaching quality is 85.20%. After adopting the information-based teaching mode, the highest teaching quality reaches 93.4%, the calculated average teaching quality is 90.16%. It can be concluded from this that English information-based teaching in colleges and universities in the 5G era has a higher teaching quality [22].

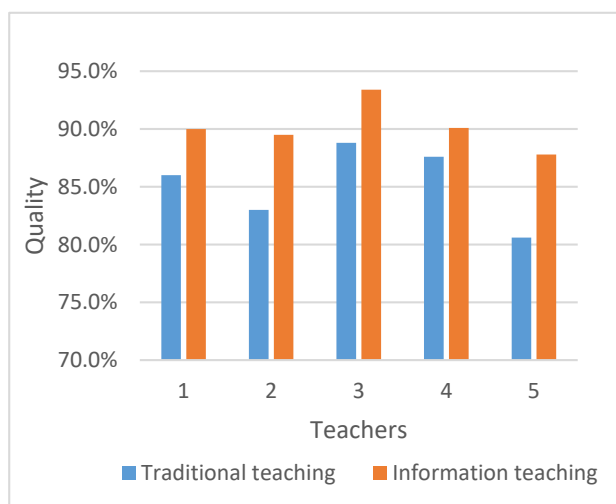


Figure 1: Teaching quality

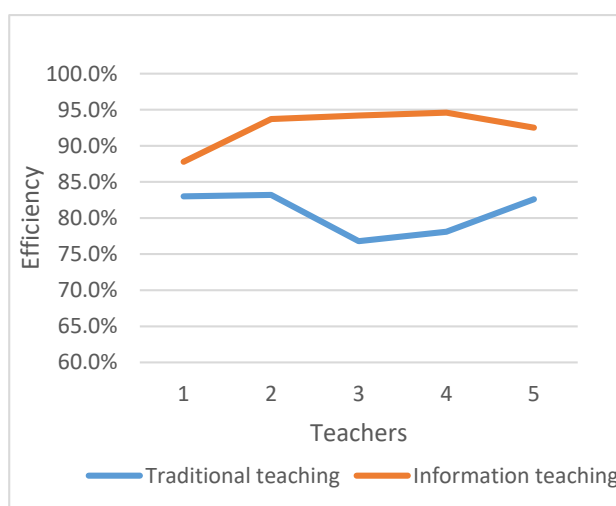


Figure 2: Teaching efficiency

It can be seen from Figure 2 that in the previous traditional teaching mode, the highest teaching efficiency was 83.2%, and the calculated average efficiency was 80.74%. After adopting the information-based teaching mode, the highest teaching efficiency reached 94.6%, the average teaching efficiency is 92.56%. From this, it can be concluded that English information-based teaching in colleges and universities in the 5G era has higher teaching efficiency. Next, taking students as the test objects and evaluate the application results of English information-based teaching in colleges and universities from the perspective of students' academic performance. The results are shown in Figure 3.

It can be seen from Figure 3 that in the previous traditional teaching mode, the highest academic score of students was 76 points, and the calculated average score was 73.62 points. After adopting the information-based teaching mode, the highest academic score is 87.9 points, and the calculated average score is 85.16 points. From this, it can be concluded that English information teaching in colleges and universities in the 5G era can improve students' academic performance. Finally, the article conducted a satisfaction survey, and the results are shown in Figure 4.

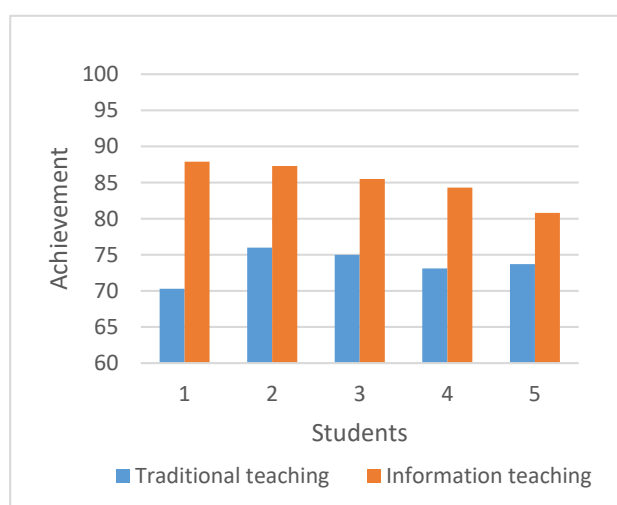


Figure 3: Student grades

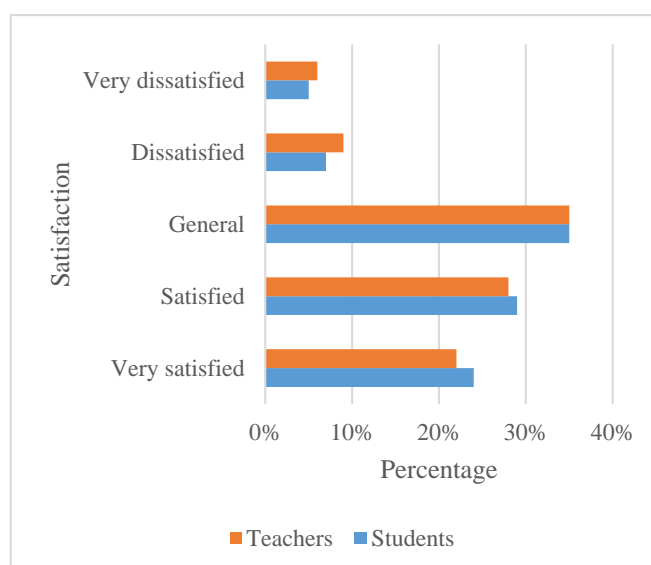


Figure 4: Satisfaction Survey Form

It can be seen from Figure 4 that both students and teachers are very satisfied with the English information-based teaching mode in colleges and universities in the 5G era, and the proportion of people who are “satisfied” and above has reached half.

5G is a new technology. Along with the development and popularity of 5G network, it is expected to have a fast growth in the coming years, and it will be widely used in English teaching. 5G can offer more resources and ways to English information education in higher education, for example, abundant online resources, good curriculum on network platform, and more study resources and references for teachers. Meanwhile, applying 5G to IE will not only accelerate the reformation of ELT but also improve the capability of EFL teachers and enhance their independence. However, 5G has also posed a lot of challenges for English language instruction, for example, the problem of network data safety, the unequal allocation of education resources, and the problem of network cheating in 5G.

So, in 5G times, English teachers must be aware of the chances and challenges that 5G will bring to them, so as to enhance their information learning capability. Firstly, it is necessary for institutions of higher learning to fully utilize the network technique in the course of English instruction. Make full use of the internet resources to enrich the teaching content, innovation the way of teaching,

enhance the students' autonomous study capability. The second is to enhance the IT cultivation of the teachers. Colleges may employ specialists in the field or specialized teachers to conduct specialized training in order to enhance the quality of information education. Third, it is necessary to intensify the study of 5G Advanced Learning and University English Teaching. Therefore, it is necessary to probe into the new ways of teaching and learning in practice, so as to build up a valid information class mode of English class. Last but not least, it is necessary to enhance the students' learning habit and self-study. Only by developing the students' excellent learning habits and self-study will they be able to raise their English learning efficiency.

All in all, the 5G technique has not only provided the chance and the challenge for the information education of the higher learning institutions, but also the development of the information education. In the age of 5G, English teachers in higher education must make use of IT's superiority, enhance their IT quality and their specialized competence, and make an active study on the reformation of IIT in 5G technology.

6. Conclusions

In the 5G age, need to fully utilize the superiority of 5G, enhance the information education environment, and fully utilize the features of high speed, low delay, wide connectivity, so as to improve the efficiency of English learning. Therefore, it is necessary to enhance the study instruction to the students, to make reasonable arrangement of the study content, to innovate the class instruction model, and to give the students a better study environment. Meanwhile, it is necessary for higher education institutions to transform their traditional educational ideas, enhance their overall diathesis and apply their IT skills, and construct an informational class mode. Moreover, higher education institutions need to fully utilize the superiority of 5G network to establish a communication platform for both teachers and students so that they can interact effectively. In the age of 5G, there is still a lot of work to do to innovate and innovate English instruction in higher learning institutions. Therefore, it is necessary to enhance the study and practice of 5G in order to achieve a better integration between 5G and English education. In conclusion, it is necessary for institutions of higher learning to make full use of 5G to construct an information based class and education environment, so that they can develop their independence, creativity, problem solving and so on.

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