

English Teaching based on "Internet +" is Deeply Integrated with Information Education

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Abstract: The purpose of "Internet+ education" is to use Internet information technology(IT) to promote the development of education network informatization in China, so that excellent education resources can be shared, so as to achieve the universality of education information dissemination in the real sense, and further narrow the education gap between urban and rural areas. Based on the background of "IP" education, this paper deeply integrates english teaching (ET) and information education (IE), and analyzes their teaching effects. This paper briefly analyzes the significance of the deep integration(DI) of ET and IE and the process of ET mode under the IT environment; Through the integration of ET and IT in the English class of Grade One in School A, test the students' interest in English learning and whether the learning efficiency is improved; The experimental results show that students' interest in English learning and learning efficiency have been significantly improved under the DI technology, which verifies the effectiveness of the DI of ET and IE.

1. Introduction

The application of "Internet+ Education" has changed China's traditional teaching methods. Especially in the context of "Internet+ Education", MOOC, micro class, flipped classroom, cloud classroom and other new education and teaching models have made great progress. It has expanded the function and value of high-quality education resources and accelerated the self evolution ability of education. Schools have become an important carrier of education. Digital campus and intelligent campus realize the digitalization, informatization and intellectualization of campus education business from the perspective of schools. This change makes the Internet and education better integrated. Based on "Internet plus (IP)" education, this paper studies the DI of ET and IE.

After more than 30 years of development of the "Internet+ Education" model, China's education network informatization has gone through two stages: infrastructure construction and implementation. So far, the infrastructure of education network informatization in China has

basically reached the end. Overseas research on education management informatization mainly focuses on the integration of IT and curriculum teaching, while domestic research mainly focuses on the summary of experience in education management informatization [1]. Most schools in China are at the stage of integrating various educational work with IT. They are moving towards the direction of network information integration and business innovation, and strive to realize the transformation of education network information industry from extensive to intensive. China has begun to explore and practice the integration of education and cloud computing, big data and the Internet of Things, laying a solid foundation for the rapid promotion of "Internet+ education". As a new infrastructure of "Internet+ Education", "Cloud+ Network+ Terminal" focuses on the DI of ET and IE [2].

Teachers have mastered the proper selection of modern IT and effectively used it in classroom teaching and to enhance students' learning ability. With the help of modern IT, teachers create and change the learning environment and innovative ways of special IT means to explore various practical problems. Based on the research on the DI of ET and IE of "IP", this paper discusses the mode of integration of IT and ET. The research method is survey research. Through questionnaires, observation and interviews, experimental tests were carried out on the students of Grade One in School A, and the survey results indicate that the DI of ET and IE is conducive to improving students' interest in English learning, It also has a great improvement in learning efficiency, which is of great significance for future ET in colleges and universities [3-4].

2. DI of ET and IE in the Context of "IP" Education

2.1. DI of ET and IE

The "integration" stage of the gradual integration of modern IT and education and teaching. In this stage, teachers have learned how and when to use modern IT, and have mastered the ability to make appropriate choices for modern IT and effectively use it in daily classroom teaching and learning. The gradual integration of modern IT and education and teaching is generally called the "integration" or "integration" stage. Some scholars call the "reform" stage as the "innovation" stage, and we are used to becoming the "DI" stage [5].

"Fusion" means not only melting into one, but also harmony and harmony. "Integration" emphasizes the inclusive relationship between IT and ET, which is inseparable from each other, i.e. $1+1>2$. This integration includes not only the integration of subject teaching content and IT, but also the construction of new teaching and learning methods [6-7]. The IT with multimedia and network as the core provides ideal resources, platform and teaching environment for ET, and penetrates into English reading and writing teaching, expanding the breadth and depth of ET content, and changing the form of ET.

In the process of teaching, teachers mainly use multimedia to impart knowledge through the use of modern educational technology. Because of the role of teachers' own factors, students' reading ability in English is difficult to improve; Teachers focus on imparting relevant English knowledge and do not pay attention to using modern educational technology to improve students' reading ability in English. The current curriculum standards clearly propose that teachers' professional abilities should be developed simultaneously with the new curriculum. In order to promote ET and improve students' reading ability in English, the majority of senior high school English teachers should change their roles in the teaching process, keep up with the pace of the times, improve ET by constantly improving their ability to apply IT in senior high school English reading teaching, truly realize the integration of subject content knowledge, teaching method knowledge and technical knowledge, and apply IT to ET [8-9].The deep integration teaching mode of English teaching and information education is shown in Figure 1.

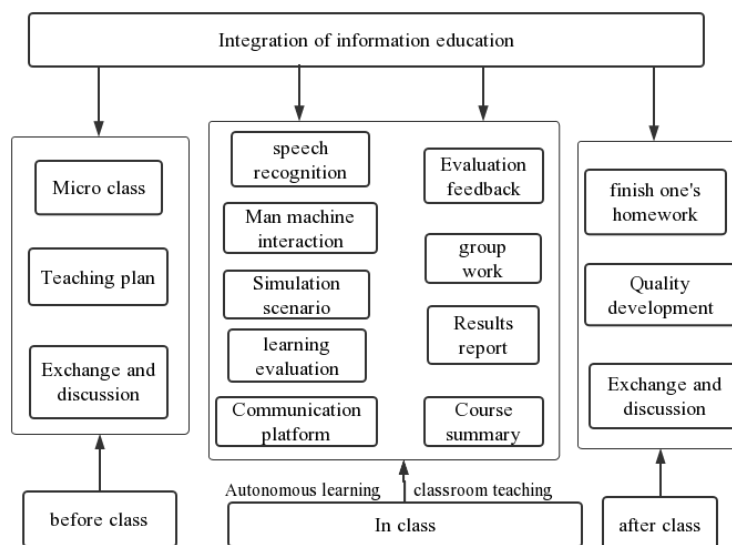


Figure 1. The teaching mode of deep integration of English teaching and information education

2.2. The Significance of the DI of IT and ET

In the IT environment, readers can fully combine text, graphics, voice and other forms, and learn and understand knowledge more effectively with the help of IT.

IT information integration can effectively improve English reading skills. As a multimedia IT, it includes video, sound, text, image and other media. It has different sensory channels at the same time, receiving information and making judgments by synthesizing and analyzing information. The multi-media advantage of integrated information can make full use of students' multiple sense channels, effectively improve students' reading ability and level, and effectively improve the learning effect [10].

2.3. Application Forms of IT in ET

At present, IT is mainly used in English reading teaching in three ways:

The first is to integrate it into teaching as a demonstration tool. That is, the teacher puts the teaching content on the big screen through the projector, and the teacher speaks and the students listen.

The second is to enrich teaching resources as a resource tool. IT can enrich English reading resources and effectively expand students' knowledge and reading. Although network search and processing can complete the learning task, there is also a lot of bad information and redundant information. Teachers and parents should guide middle school students to distinguish.

The third form is that IT satisfies personalized learning in the form of thematic learning websites. In Linglangman English reading websites, we should pay attention to the rational selection of information resources. First of all, we should make clear the goal of using the website, and make a comprehensive selection according to our own learning characteristics and goals [11]. In addition, students can independently carry out relevant learning in the IT environment, but it is difficult to get effective guidance when encountering problems. Students are easy to lose their learning direction in an environment without teacher guidance.

2.3. ET Model Process under IT Environment

The realization of the teaching goal is the most fundamental goal of the teaching model. Under the IT environment, the new ET mode not only includes the theoretical basis and software and hardware facilities, but also the relevant quality conditions of teachers and students. More importantly, a scientific and reasonable operation process is needed to ensure the effectiveness of the entire teaching.

The innovative teaching mode in the IT environment is designed according to the three interactive English reading processes: information input before reading, information processing during reading and information output after reading. Figure 2 is the flow chart of English teaching mode under the information technology environment.

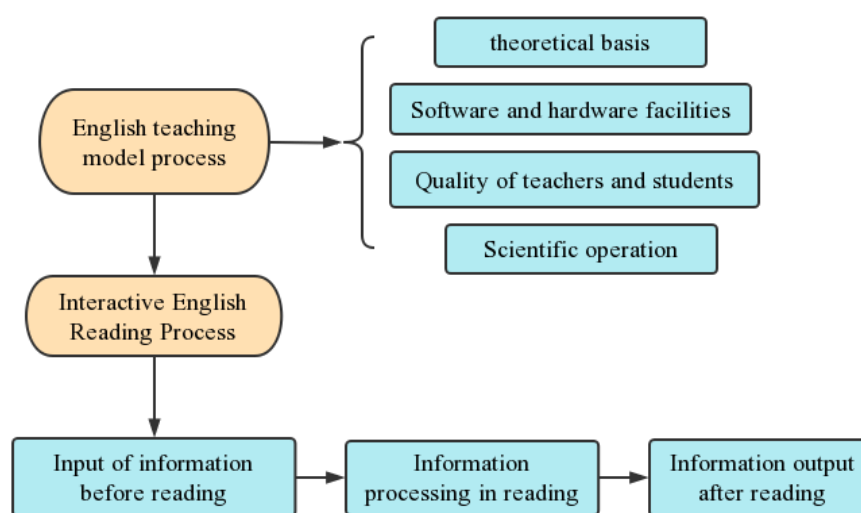


Figure 2. Flow chart of English teaching mode in the information technology environment

Stage I: Input of information before reading

Before reading, teachers should mainly design teaching courseware and collect relevant materials. At the same time, according to the characteristics of students in different grades, they should use IT to improve the level of students' ability, including the ability to understand reading materials. The teacher's curriculum design not only includes the teaching plan, but also designs the corresponding scene situations and questions for students to think about. This is not only conducive to increasing the students' understanding of reading materials in the situation, but also can gradually cultivate the enthusiasm for active thinking. Teachers' curriculum design directly determines the quality of reading comprehension, which is also one of the most important tasks that teachers need to invest time and energy in teaching.

The second stage: information processing in reading

The ET mode under the IT environment is student-centered, encouraging students to actively participate in classroom teaching, giving full play to students' initiative and cultivating the ability of cooperation and interaction, but this does not mean taking a laissez faire attitude. This series of activities are still carried out under the creation of a scientific and reasonable teaching situation and scene atmosphere, stimulating students' interest in reading by teaching scientific and reasonable learning methods, this teaching mode can not only integrate students into the classroom, but also promote the formation of the whole learning atmosphere of the class [12].

The information interaction between students is actually a process of interaction with reading materials. Students preview words, phrases, grammar, etc. in advance, then understand and analyze the article on a basic level, combined with the situation created by IT, and through the teacher's initiation to students, students can master the general content of the whole article as a whole[13-14].

After students have a smooth understanding of the article, the next question is to guide students to output information. Sometimes, students' reading can not reach a good understanding degree under the condition of their own preview and teacher's assistance. At this time, teachers and students should analyze the causes of this difficulty. They should not only analyze human factors, but also comprehensively consider the situation of reading materials. The difficulty of article content, the complexity of sentence structure, and the large vocabulary of new words may cause difficulties in understanding. After encountering reading difficulties, students should remedy their own problems, analyze their own defects, and make an objective and practical assessment of their own situation. If there are problems with vocabulary and grammar, it shows that students' basic knowledge is not solid enough and should be further consolidated and improved; If you do not understand the cultural background of the reading materials, you can expand the cultural background knowledge through the use of IT. The conduct and analysis of these activities can not be separated from the active participation of teachers, and teachers should also actively play their role in guiding and assisting[15].

The students' information output in the reading process mainly comes from the interaction with the reading materials. They can solve the difficulties encountered in the reading process in a timely manner by using IT networks and consulting teachers. Students need to pay attention in the process of reading. On the level of fully mastering basic knowledge such as words and grammar, they need to fully understand the background knowledge of the article. On the basis of understanding the article, they need to guide students to analyze the following text, infer the center of the article, and change the process from basic knowledge to understanding step by step. At the same time, they need to revise some existing problems, and process and process the reading information of the article, finally, complete the comprehensive understanding.

The application forms of IT have diversified characteristics in various reading processes. It can present the basic knowledge through multimedia presentation. In addition, IT can also provide students with rich reading resources, expand students' relevant background knowledge, and avoid the reading difficulties arising therefrom. It can not only broaden students' horizons, but also enrich students' knowledge levels, which is conducive to the smooth progress of reading.

3. Investigation and Research on the DI of ET and Informatization Education in the Context of "IP"

3.1. Research Purpose and Method

The purpose of this study is to verify whether the DI of ET and IE can effectively promote the improvement of teaching effect in the context of "IP". Through the integration of ET and IT in the English class of the first year of senior high school A, test the students' interest in the IT, the improvement of the IT course performance, and the improvement of IT literacy.

3.2. Data Collection

In this study, all the students in Grade One of High School A were selected as the experimental group. A total of 345 questionnaires were distributed in the experimental group, 752 were returned, and 322 valid questionnaires, of which the proportion of male and female questionnaires was 3:4.

3.3. Data Processing and Analysis

In this paper, SPSS 22.0 software was used to analyze the results of the questionnaire survey, and t-test was conducted. The t-test formula used in this paper is as follows:

$$t = \frac{\bar{X} - \mu}{\frac{\sigma X}{\sqrt{n}}} \quad (1)$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2} \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}} \quad (2)$$

Wherein, Formula (1) is a single population test, \bar{X} is the sample average, s is the sample standard deviation, and n is the sample number. Formula (2) is a double population test. S_1^2 and S_2^2 are the variance of two samples, and n_1 and n_2 are the sample size.

4. Experimental Test Analysis

4.1. Experimental Design

In order to verify whether the DI of ET and IE can effectively promote the improvement of teaching effect under the background of "IP". Through the integration of ET and IT in the English class of Grade One in School A, this paper tests the students' interest in English learning and whether the learning efficiency is improved. Independent variable: "DI of ET and IE". The experimental class uses "DI of ET and IE" for teaching; Dependent variable: students' interest in English learning; Students' evaluation of English learning effect.

4.2. Analysis of Experimental Results

4.2.1. Changes in students' interest in English learning

This paper investigates, analyzes and contrasts the changes of students' interest in English learning before and after the integration of ET and IE in the context of "IP" in Senior One of School A. The survey results are shown in Table 1 and Figure 3.

Table 1. Changes of students' interest in English learning before and after the deep integration of English teaching and information education

Change of interest	have interest in	just so so	uninterested
Before integration	(105)34.2%	(123)40.5%	(45)13.5%
After integration	(231)68.3%	(56)19.9%	(4)1.42%

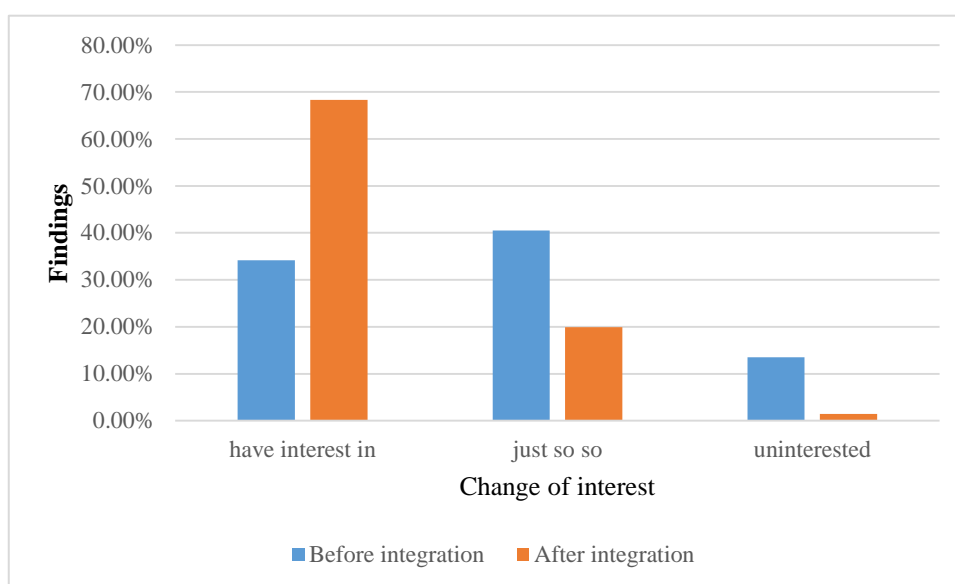


Figure 3. Changes in students' interest in English learning

4.2.2. Analysis of students' English learning efficiency

Before and after the DI of ET and IE in the context of "IP", Grade A of Senior One analyzed students' evaluation of their English learning efficiency, and the results are shown in Table 2 and Figure 4.

Table 2. Students' evaluation of school effect before and after the experimental class

	Significantly improved efficiency	Not much efficiency improvement	have no feelings	Reduced efficiency
Before integration	13.4%	15.7%	33.8%	12.5%
After integration	66.9%	43.6%	35.7%	1.04%

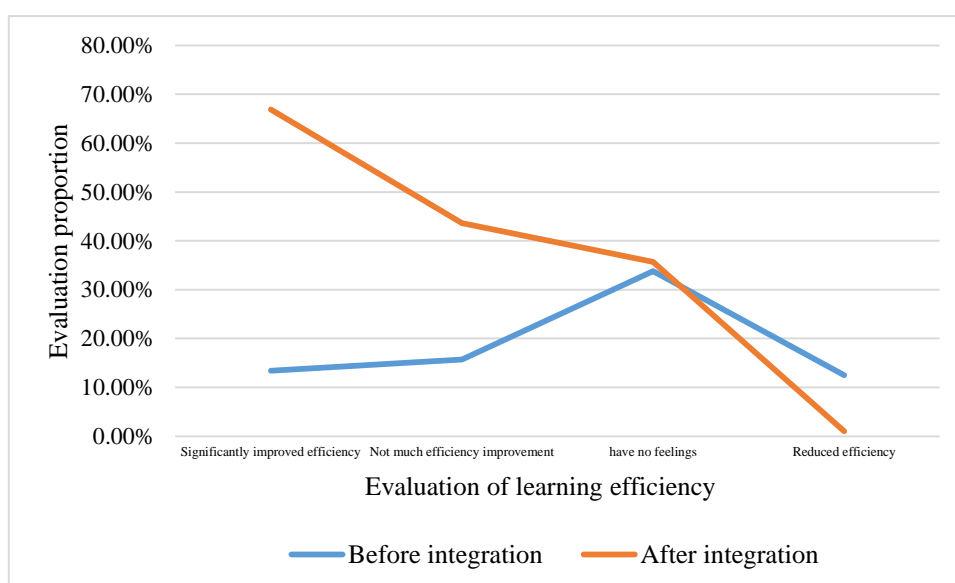


Figure 4. Changes in students' assessment of their English learning efficiency

From the above chart data, it can be clearly observed that the students in the experimental group have significant differences in their interest in English learning and learning efficiency before and after the experiment while completing the task of one semester. This shows that after the DI of ET and IE, the students in this class have significantly improved their interest in learning English courses and learning efficiency. It shows that the DI of ET IE has a significant effect on improving students' learning interest. The improvement of interest will naturally lead to the improvement of academic performance and knowledge mastery.

Through the questionnaire survey, it can be reflected that the teaching design strategy of teachers' DI of ET and IE can effectively improve students' interest in learning, stimulate students' interest in learning, and improve the effect of their active participation in classroom learning, talking and answering questions, thus effectively promoting the teaching effect in actual teaching.

5. Conclusions

In recent years, the rapid development of IT has indeed had a comprehensive and profound impact on higher education. The continuous development of IT in ET can effectively guarantee the progress of teaching with the times. Moreover, the practice has proved that the ET level has indeed improved under this model. In the special environment of China's basic education, we can try to introduce more advanced teaching design ideas into the field of education informatization and the DI of IT and teaching to form some creative ideas. In a word, in the context of "IP", ET and IE should be properly integrated in the process of teaching design. According to the characteristics of teaching and teaching of teachers, teaching theories should be fully used to guide different teaching designs, so as to effectively promote the improvement of teaching effectiveness.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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