# Construction of Smart Classroom for English Teaching under Modern Information Technology

# Yan Li\*

School of Foreign Languages, Nanchong Vocational and Technical College, Nanchong, Sichuan, China 2327002375@qq.com
\*Corresponding author

Abstract: In the current English teaching, students are still under the control and domination of teachers, and students are always in a passive state. This kind of teaching method is incompatible with the social background of the network era, which would inevitably lead to students' dissatisfaction and lead to the disharmony of classroom teaching. Therefore, people must use information technology to reform the traditional classroom teaching. Based on the teaching practice, this paper made an in-depth study of the characteristics of school English curriculum and put forward the corresponding design scheme. In the course design, it is divided into three main courses: listening, reading and writing. They are carried out before, during and after class, and explained and supported by corresponding teaching design. When using information technology to create scenes, people should pay attention to the combination of virtual scenes and real scenes, and the combination of information technology and traditional teaching activities. Teachers use teaching design, create situations, introduce new courses, guide new knowledge, use pictures and videos and other methods before class to improve students' learning interest. In the smart classroom teaching, teachers organize students to carry out cooperative inquiry, complete the homework in the form of group cooperation, feedback the results of the homework to teachers and the learning system, and display and share them in the classroom. In the satisfaction survey, it was found that the students' satisfaction with pre-class exercises was 86%. The article broadens the students' English learning vision and can be used in practice, thus laying a solid foundation for students to carry out activities related to English education in the future.

Keywords: English Teaching, Smart Classroom, Modern Information Technology, Instructional Design

#### 1. Introduction

Today, with the rapid development of information technology, teachers still use the "cramming" teaching method, which severely limits the students' enthusiasm for learning and ignores the students' thinking training. Textbooks are an important basis for English teaching. Without good textbooks, it is difficult for students to carry out effective teaching in English classes. At present, the application of English textbooks is not comprehensive and targeted enough. They are seriously disconnected from students' life, professional learning and English education, and lag behind. Students cannot use English textbooks well after learning. Students' enthusiasm for learning and teachers' tiredness often lead to unsatisfactory results. Teachers should use modern information technology to provide a large number of pictures, animations, videos and a variety of audio-visual materials in the classroom. This can create a simulated or virtual scene for teaching, so that students can have a sense of immersive.

According to the students' performance in smart classroom English teaching, people can summarize the excellent performance of students in the classroom. Rashid Radzuwan AB reviewed the reforms related to English teaching in Malaysia's education system. He first traced back the history of Malaysia as a former British colony, and he believed that the status of English in the country had a significant impact [1]. Turan Zeynep's research aims to explore the research trends and main findings of flipped classroom teaching in the field of English teaching. In English teaching research, the most commonly used research methods in flipped classroom are mixed and quantitative methods. Oral and writing skills are the most commonly used language skills. His further analysis reveals the challenges and benefits of using the flipped classroom approach in the EFL classroom. In addition, in the research on the effectiveness of flipped classroom methods, most of the results point to the benefits of flipped classroom methods [2]. Amin Momen Yaseen M believed that language teaching curriculum and

teaching methods were a complex process. This process requires the application of many disciplines such as linguistics, psychology, sociology, pedagogy and politics. In addition, curriculum designers must answer the needs of theory. It also requires the joint efforts of experienced English teachers and experts on the subject. He aimed to reveal the history of the Iraqi English curriculum and the reform stage it has gone through [3]. Rahman Mohammad Mosiur believed that English, as a global language, was at the peak of its significance for Bangladeshi learners. His main purpose is to review the main problems related to English teaching in Bangladesh from the perspective of teachers. These problems hinder the implementation of the new CLT (Communicative Language Teaching) curriculum, and ultimately put forward suggestions for more effective English teaching curriculum reform [4]. Sifakis Nicos C proposed a framework to integrate English as a common language research into English teaching, but it also includes teacher education, material development and evaluation, policy design and planning, evaluation and testing [5]. Their research only made a lot of statistics on English teaching, and did not give a substantial case study.

Teachers can take effective measures to improve the quality of English teaching by giving them a reference on course teaching. The interpretive research of Uztosun Mehmet Sercan report aims to understand the views of in-service English teachers on the in-service teacher education program provided by the Ministry of Education of Turkiye. He collected data from 2476 in-service teachers through an online questionnaire containing closed and open projects [6]. Ulla Mark B's research aims to identify various Internet based applications integrated in the EFL classroom. His research explored how seven English teachers from a university in Thailand used different applications in English teaching. Based on the findings, he discussed the impact on English teaching and made suggestions for future research [7]. Hashemi Aminuddin believed that ICT has recently become a hot topic among language teachers worldwide. The application of ICT in English teaching is a relatively new phenomenon [8]. In view of the new trends in the place, reason, method and purpose of English teachers' preparation, Johnson Karen E believed that in an increasingly diversified, mobile, unequal and globalized world, it was essential to pay more attention to the design, implementation and consequences of language teachers' educational teaching methods to meet the needs of current and future English teachers [9]. Sari Ima Frafika's research elaborated the definition of online learning and the application of online learning in English teaching. His research method uses qualitative research to explain the online learning application of English teaching. He still lacks research in online learning of English teaching [10]. Erarslan Ali believed that English communication ability was a demand brought about by the globalization process, which included the development of many fields such as science and technology. However, more and more people believe that these English teaching methods do not achieve the goal of enabling primary school students to master the necessary English communication skills [11]. Thompson Gene's research explored English teachers' beliefs about foreign language teaching effectiveness in Japanese schools. Some dimensions of foreign language teaching effectiveness, such as the effectiveness of using a second language, can be extended to a wider range of fields [12]. Ciptaningrum Dyah Setyowati's research aims to design a survey tool to collect the relationship between information and communication technologies of Indonesian English teachers and their teaching content [13]. The research of the scholars lacks the innovation of the main teaching environment.

Learning a language requires a lot of language materials, but there is no English language environment around. Therefore, how to learn English better is a problem worth thinking about. However, as people all know, although students' English teaching mainly depends on teachers' teaching, it is far from enough to rely solely on teachers' teaching. Therefore, people must create a real English teaching environment for students and provide them with more learning resources. As a major subject, the degree of English involvement of English majors is directly related to their overall academic performance. Therefore, it is necessary to study the problem of English input. Although many scholars have done a lot of research on students' learning input, there is little research on students' learning input and the combination of specific environments and disciplines. Therefore, it is not only an innovation, but also a feasible method to explore the relevant issues of students' English input in the smart classroom. This study found that students' satisfaction with the guidance sheet was 86%.

# 2. Construction and Exploration Methods of English Teaching Smart Classroom

# 2.1 English Teaching under Modern Information Technology

When integrating the school English curriculum, people should not blindly copy the existing

integration methods of information technology, but combine the characteristics of the school English curriculum with the development needs of students to explore the role and potential of information technology in the school English curriculum, and find the connection between the two. The combination of information technology and English is not simply to "teach" information technology to English teachers, but to "integrate" information technology and English [14]. It is a new teaching mode that combines information technology, information resources with English curriculum structure and English curriculum teaching content, so as to achieve the purpose of English curriculum teaching. It is a new way of education that combines English technology with information technology, which combines knowledge, literacy and tools. This teaching mode can achieve a comprehensive reform of traditional teaching concepts, learning methods and evaluation methods. It enables students or other English learners to correctly use various technical tools, acquire, process and apply information, master corresponding knowledge and cultivate certain creativity at all stages of learning [15].

#### (1) Basic Strategies for the Integration of Information Technology and School English Teaching

First of all, in English teaching, cultivating students' interest in learning and determining their goals are the key to improving their English learning effectiveness [16]. There are many ways to stimulate students' interests. People should give full play to students' life and learning experiences, and encourage them to find and form problems themselves. Secondly, teachers should make full use of existing knowledge and experience to perceive new language elements in a relatively realistic environment, such as using computers to assist English teaching [17]. The third is the connection between language symbols and material or thought, but this connection is very short, easy to forget, and difficult to stimulate in real life. Fourth, it should let the students practice and imitate as much as possible, with evaluation, feedback and correction. It should not only have mechanical repetition, but also change characters, objects and scenes, and add new language elements and language needs. In English language teaching, students should try their best to combine existing knowledge with newly learned knowledge and skills to form a new language [18]. Fifth, people should make full use of the role of information technology in English teaching, broaden the use of students, and cultivate students' flexible language skills.

#### 1) Using Information Technology to Create a Favorable Learning Environment

The goal of school English teaching is to "stimulate students' interest in learning and develop their tone." In the process of combining the application of information technology with school English teaching, attention should be paid to the situations created by information technology to promote students' happiness and love, so as to stimulate students' interest in learning and stimulate their desire for knowledge [19]. Information technology can be used to make English teaching activities more reasonable and flexible, in a situation, so that students can more accurately and intuitively feel the knowledge they have learned, and can better participate in language practice activities, thus improving students' English expression ability [20]. At the same time, when using information technology to create situations, people should pay attention to the integration of virtual scenes and real scenes, and connect information technology with traditional teaching activities.

# 2) Make full use of information technology as teaching resources to expand opportunities for English input and communication

"Developing students' good language sense" is one of the goals of school English teaching. To improve the language sense, it needs a lot of input. When using information technology teaching materials, whether audio-visual materials or reading materials, they should conform to the current level of students' knowledge, cognition and psychological development, and according to the theory of "the latest development region", they should propose materials that are earlier than the current learning level, so as to broaden students' horizons and improve their understanding of language. With the help of computer technology, students can make more use of multimedia and the Internet to learn English and get better exercise in listening, speaking, reading, writing and other aspects. With the increase of learning frequency, students can better understand and master English, and to a certain extent, help students to establish a good sense of language and achieve teaching objectives. In the case of a large amount of input and contact by students, the use of information technology provides students with cognitive and thinking tools to promote students' deep thinking and creative activities [21].

#### (2) Reading teaching of school english under the background of informationization

A person's English level usually affects his absorption of useful information. The traditional "indoctrination" teaching method is very limited to students' reading ability, and it is also a difficult point to cultivate learners' autonomous learning and reading ability. At the same time, people can use

the huge advantages of information technology in creating situations, providing resources, and interacting. Under the guidance of teachers, students can roam freely on the Internet. With the help of audio dictionaries, pictures, animations and audio dictionaries, students can broaden their horizons, master knowledge, improve their self-learning ability and enjoy the fun of English learning.

In school English teaching, people should create a positive and lively classroom atmosphere, cultivate students' interest in learning and motivation to remember words, and integrate vocabulary teaching into students' cognitive process organically. In the teaching of English vocabulary in schools, games are used to create a relaxed, lively and happy classroom atmosphere, so that children can enjoy learning and help others. The interactive advantages of online courseware can be used to help learn and consolidate words.

Pupils are characterized by curiosity about new things and love of stories. Traditional Chinese teaching is limited to text materials such as textbooks and storybooks, which makes students feel boring and difficult to arouse students' interest. Teachers feel that text teaching is time-consuming and inefficient. In order to change this situation, multimedia computers can be used to show the specific scenes reflected in the classroom, and to demonstrate the dialogue at ordinary speed, so that students can understand the meaning of the text through watching and listening, and through the scenes in the pictures and newly learned vocabulary.

Students' mastery of words and understanding of texts are still in the stage of input, and they have not yet conducted "internalized" output, and students cannot use English. In the process of implementing integrated English teaching, people can use computer technology to create teaching situations and guide students to play, adapt and perform stories. Expand the scope of English reading, provide online reading websites for school English, so that students can increase their reading amount and enhance their listening ability through online audio stories in their spare time.

Efficiency of mental workload test and concentration test in English class X<sub>L</sub>:

$$X_{L} = \sum NG / \Delta T \tag{1}$$

In modern information technology teaching, discrete wavelet transform is applied to discrete EEG signal  $w_s$ :

$$w_s = \frac{1}{n} \sum s(t) / \rho(b - a)$$
 (2)

Students' EEG signals can be decomposed into the sum of low-frequency component  $A_L$  and high-frequency component signals  $D_i$  of each layer, namely:

$$S(n) = A_L + D_i \tag{3}$$

i is the mental workload feature extracted by discrete wavelet transform, and F(i) is the feature function.

$$F(i) = b + \frac{1}{m} \sum d_i \tag{4}$$

Teaching evaluation index F<sub>2</sub> of smart classroom:

$$F_2 = b + \frac{1}{m}(V + d_i) \tag{5}$$

Teaching speed j<sub>v</sub>:

$$j_{v} = \rho \sqrt{T} / F(T) dT \tag{6}$$

Student intelligence level  $Z_L$  is:

$$Z_L = ms_0 + \sum_{n=1}^{\infty} \left( b_n \sin \frac{n\pi x}{t} - b_n \cos \frac{m\pi x}{t} \right)$$
 (7)

# 2.2 Design of Smart Classroom Teaching Mode

In the information age, science and technology have had a tremendous impact on all aspects. In the traditional classroom, the simple blackboard layout can no longer meet the needs of the times. Therefore, it is urgent to realize education informatization. With the influx of a large amount of information and the continuous emergence of various learning contents, a new, intelligent and intelligent classroom teaching method came into being. Smart classroom takes information technology

as the carrier, and breaks through the time and space limitation of traditional classroom by changing the classroom teaching method. With the continuous deepening of the implementation of "smart classroom" in schools, education informatization has changed from "integration" to "intelligence". In the era of education informatization 2.0, it is inevitable to bring innovation and development to education reform through smart classroom and smart education. Although the academic circles have different definitions of "smart classroom", in general, their substantive nature is the same. Through the definition of different experts and scholars, "smart classroom" is a kind of smart classroom aimed at improving students' intelligence, comprehensive and personalized development.

#### (1) Different teaching process design

Preparation before class: The teacher mainly collects and analyzes the previous learning materials, and judges the students' learning foundation and learning ability subjectively and rationally according to the teacher. Then, the new knowledge in the textbook is analyzed from the aspects of learning purpose, learning focus and difficulties. Students can have a reasonable number of difficulty and preview tests. Students can preview by themselves and according to the teacher's recommendation, or read other preview materials to complete the preview. The students' learning materials can be systematically counted and analyzed. It includes the correct rate and error rate of the evaluation questions. In view of the actual learning situation, people should formulate an effective teaching plan, prepare guidance cases, record micro lessons, and make courseware. The key points and time can be focused on breaking through the key points and difficulties. The specific pre-class link design is shown in Figure 1.

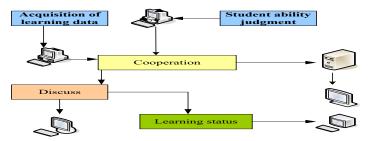


Figure 1: Specific pre-class link design

In class implementation: In the classroom, the teacher designs teaching before class, creates scenarios, introduces new lessons, guides students to think about new knowledge, and uses images, videos and other methods to stimulate students' interest in learning. On this basis, teachers push learning tasks to students, which are task oriented and accepted and analyzed by students. The teacher organizes students to carry out cooperative exploration, complete the homework in a team way, feedback the results of the homework to the teacher and the system, and demonstrate and share them in class. The teacher analyzed the students' homework completion, found some difficult problems on this basis, and evaluated and refined them. In teaching, teachers can activate the classroom atmosphere, stimulate students' enthusiasm and improve their team cooperation ability by rushing to answer questions and other ways. In the classroom, the teacher would select the corresponding training content from the teaching resource library according to the information collected and fed back by the system, form a test paper in the classroom, upload it to the students' real-time test, and the system would analyze the data to determine the key points and difficulties of this lesson. The process implemented in the course is shown in Figure 2.

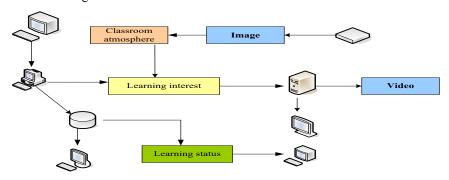


Figure 2: Process implemented in class

After class evaluation: teachers would send appropriate tasks to students according to their learning

conditions, and then students would complete them. Teachers systematically summarize their classroom teaching, students evaluate their learning, and students review each other according to their homework performance and teacher's evaluation. Finally, teachers would expand resources to students, extend learning beyond the classroom, strengthen the consolidation of knowledge, deepen the depth of learning, and use the resources provided by teachers to expand and improve. The after class evaluation in the smart classroom is shown in Figure 3.

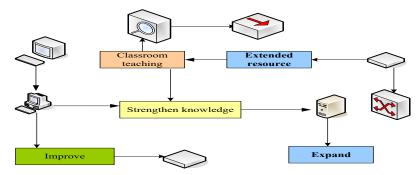


Figure 3: After class evaluation in smart classroom

#### (2) Teaching Design of Different Classes

Listening and speaking class: The operation center of the smart class can be used for special training in English listening and speaking. The topics include following, listening, and word selection, so that students can master the pronunciation of this unit. The phonetic evaluation function of the smart classroom can be used to grade the text, so that students can better understand the content of this unit. The teacher can know the students' problems in the reading process by checking the system scores, make targeted breakthroughs in the teaching design, and guide them in the classroom. In this way, people can give full play to the role of the smart classroom. Teachers can directly check students' pronunciation, but they can't know everyone's specific situation. They can only check individual students. The grading system of the smart classroom can show the scores of each student, making it easier for teachers to master the latest learning trends.

After class, the teacher would arrange the corresponding homework according to the actual situation of the students, carry out listening training, and translate the "speaking" skills into the actual homework, so that it can keep a good relationship with the examination and results. After receiving students' homework and systematic statistics, teachers would review all parts of their teaching, so as to better improve classroom teaching and provide more extracurricular development resources for students, such as English songs, English movies, etc., to stimulate students' interest in learning English and expand their horizons.

Reading and writing class: In teaching, teachers use multimedia, pictures, audio and other forms to guide students to enter the text, and then according to the reading process. The reading process can be divided into fast reading and careful reading. Complete the relevant exercises in a certain time, and then give the correct answers to the system for correction. The teachers organize students to cooperate in groups, and the group members discuss together to answer the questions in the previous articles and train "little teachers" to explain to everyone. In this process, the teacher should clearly guide and discuss the theme composition to avoid students' aimless discussion, thus affecting the effect of the discussion. After the demonstration, the teacher corrected various problems in the demonstration, such as grammatical errors, so that students could use knowledge more clearly.

Review course: The review course should focus on language training for the key knowledge of this unit, and design teaching links and learning resources from the perspective of examination questions. As it is a review course, people should consider the focus of knowledge as a whole and pay attention to the comprehensive understanding and application of knowledge. Therefore, in the preview stage, the teacher would use the form of micro lessons to summarize the knowledge points used in the key languages of this unit, and set up a preview evaluation based on the basic knowledge test. During the evaluation and test paper formation, it is necessary to cover the key and difficult knowledge of this unit. At the same time, a set of better topics should be designed for students with strong learning ability. Teachers should design teaching according to the results of the system's performance statistics. In the teaching process, people should fully consider the personality characteristics of students and set up hierarchical and difficult questions to meet the needs of different students.

#### 3. Results of the Construction of Smart Classroom for English Teaching

Compared with the traditional classroom model, the compliance of the "smart classroom" teaching model in the study interest survey is shown in Figure 4 (very consistent and consistent as shown in Figure 4 (a), and no choice is generally shown in Figure 4 (b)). 62.26% of the students' choices in this area are very consistent, and 17.63% of the students choose to be consistent. 10.59% of the students did not make a decision, and 9.52% of the students thought it was average.

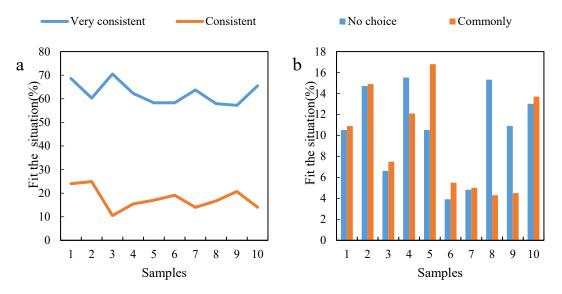


Figure 4: Compared with the traditional classroom model, the conformity of the study interest survey of the "smart classroom" teaching model

The students were 86% satisfied with the guidance sheet, 90% satisfied with the micro video and other learning materials, and 86% satisfied with the pre-class exercises. This shows that students are generally satisfied with the pre-class learning content, and teachers can make timely adjustments to the learning materials according to students' responses and feedback to meet the learning needs of most students. The satisfaction survey of the teaching preparation in the early stage of the smart class is shown in Figure 5 (the satisfaction of the guide sheet and micro video and other learning materials is shown in Figure 5 (a), and the satisfaction of the pre-class exercise is shown in Figure 5 (b)).

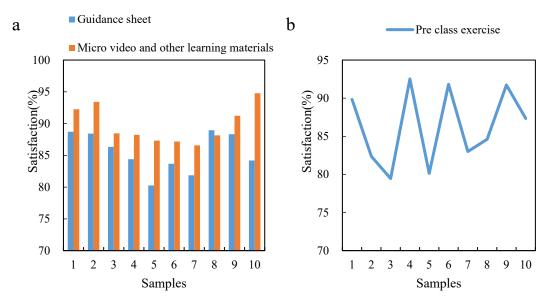


Figure 5: Satisfaction survey of teaching preparation in the early stage of smart class

In the modern information technology environment, the overall cognitive score of English teaching situation is 3.6, which is above average. In the class, students have a good perception of peer

cooperation (Mean value=4.1), and their equal perception of the classroom environment is 4.1. Students' perception of teachers' help (Mean value=3.1) and students' responsibility (Mean value=3.0) is average. In general, the class atmosphere is harmonious, harmonious and positive. The perception scores of students are shown in Figure 6 (overall cognition of English teaching situation, students' cooperation with peers, equality of classroom environment are shown in Figure 6 (a), and help to teachers and students' responsibilities are shown in Figure 6 (b)).

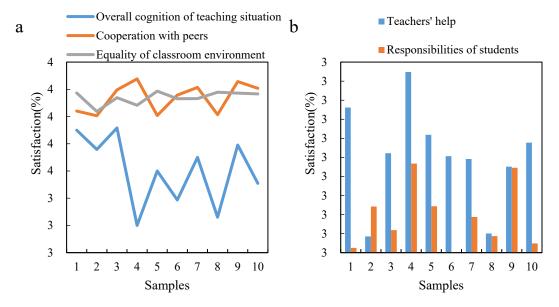


Figure 6: Student perception score

In the context of smart classroom, the preview materials, preview evaluation and other information would be sent to the "classroom space" and "homework platform" respectively before the classroom. 63.3% students can fully grasp the preview materials, 28.22% students can roughly understand, 8.48% students have not yet understood the preview materials. Students actively preview in class, actively participate in teachers' teaching activities, and actively carry out teaching activities. People should actively discuss and communicate with teachers and students in class. However, few students failed to complete the teacher's teaching tasks in time and did not understand the preview materials provided by the teacher. Therefore, their learning situation is not very good. Through observation and analysis of these problems, some students did not study hard, their basic knowledge was weak, and their learning attitude was negative. After receiving the critical education inspection, this part of students can correct in a timely manner and carry out profound introspection and correction. The degree of students' understanding of the preview materials is shown in Figure 7 (the proportion of fully mastering the preview materials to roughly understanding is shown in Figure 7 (a), and the proportion of students who have not yet understood the preview materials is shown in Figure 7 (b)).

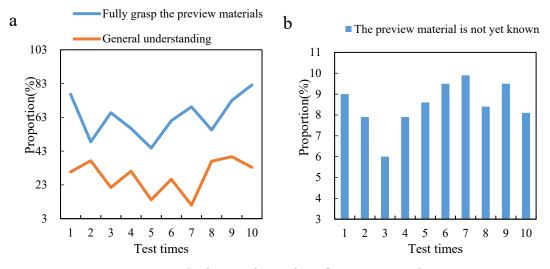


Figure 7: Students' understanding of preview materials

Information technology is one of the most rapid, active and influential disciplines in science and technology. The rise of information technology has provided great convenience for English teaching. The use of computer technology can make the teaching content vivid and substantial. Through classroom observation, people can see that there are many methods of using modern information technology in the process of combining classroom teaching with information technology. For example, when teaching animal words, the sound of animals can be introduced to make students have an impression of animals in their hearing. Then they can use animal images to stimulate students' vision, so as to produce a comprehensive impression of biology, and finally they can accurately input correct pronunciation. However, in the process of using information technology, there is a waste of resources and interference with teaching objectives. The dominant position of teaching courseware in the classroom would also be affected.

Diversity means different kinds of information. With the support of information technology, information can be processed, converted, and transmitted to students by using graphics, text, audio, video and other ways, thus enriching the teaching content of the classroom and presenting it dynamically. Especially through the stimulation of hearing, vision and other senses, their knowledge absorption ability in the classroom has been greatly improved. Interactive feature refers to the main difference between multimedia and one-way information transmission methods such as film and television. Film and television can only provide a one-way information transmission, and information technology can enable learners to better participate in education, thus enhancing students' understanding and attention to information. At the same time, it can successfully realize the interaction between students, teachers and multimedia. In the traditional classroom, teachers organize teaching activities. Students' passive participation in the classroom makes their interest in learning decline and cannot get timely feedback. Under the premise of adjusting teaching strategies, teachers can achieve the best teaching effect by using information technology. It can be seen that the unique interactive characteristics of modern information technology and smart classroom are not only the core of education, but also change the traditional education methods.

For teachers, there are obvious differences between the smart classroom and the traditional "teaching". Therefore, teachers should reflect from the perspective of "wisdom". The teaching plan, teaching rhythm and curriculum design should be adjusted to improve the teaching quality and promote the curriculum reform. In addition, people should pay attention to the learning situation, participation and interaction in classroom teaching. Teachers should adjust teaching strategies in time to increase students' interest in learning. For students, their outstanding performance in the classroom should be summarized based on their performance in "smart classroom" English teaching. Students can be encouraged to actively participate in classroom interaction, complete homework on time, etc., and reflect on students' shortcomings. For example, they do not participate in group discussions, do not actively deal with the problems raised by teachers, and cannot fulfill the requirements of teachers.

In a smart classroom environment, the investigation and case study of students' English input can not only provide some help for students' English learning, but also provide teachers with reference for English teaching. In China, students are under great pressure to enter higher education. Because the score of English subject is very high, English score is one of the keys to decide which school one would go to in the future. Through the investigation and case analysis of students' English learning input, students can better understand the problems in current English teaching. This paper put forward some suggestions on how to improve students' academic performance from both teachers and students.

#### 4. Conclusions

In terms of information technology, it is only an auxiliary tool and should not be relied on by teachers, which many teachers should realize. With the rapid development of science and technology, informatization is an important way of education. People should make rational use of it, improve the teaching effect, and make it better serve teaching. Under the modern information technology and smart classroom teaching mode, the interaction between students and teachers in the classroom has also been significantly improved, and their English activities have also been significantly improved. They have become more active, full of vitality and enthusiasm. This model provides a good template and framework for online teachers. It makes students' learning more organized, and this model is not rigid. Teachers can decide teaching materials and time according to their own teaching methods, experience, and students' basic characteristics. In the teaching process, the reasonable use of technology related to teaching can make classroom teaching more lively and interesting. This model is only a preliminary discussion at present, and it still needs to be developed and improved in the future. At the same time, it

is also expected to continue to attach importance to the theory and practice of "smart classroom" in the future, and further solve various problems in the same teaching environment.

#### References

- [1] Rashid, Radzuwan AB, Shireena Basree Abdul Rahman, and Kamariah Yunus. "Reforms in the policy of English language teaching in Malaysia." Policy Futures in Education 15.1 (2017): 100-112.
- [2] Turan, Zeynep, and Birgul Akdag-Cimen. "Flipped classroom in English language teaching: a systematic review." Computer Assisted Language Learning 33.5-6 (2020): 590-606.
- [3] Amin, Momen Yaseen M. "English language teaching methods and reforms in English curriculum in Iraq; an overview." Journal of University of Human Development 3.3 (2017): 578-583.
- [4] Rahman, Mohammad Mosiur, and Ambigapathy Pandian. "A critical investigation of English language teaching in Bangladesh: Unfulfilled expectations after two decades of communicative language teaching." English Today 34.3 (2018): 43-49.
- [5] Sifakis, Nicos C. "ELF awareness in English language teaching: Principles and processes." Applied linguistics 40.2 (2019): 288-306.
- [6] Uztosun, Mehmet Sercan. "In-service teacher education in Turkey: English language teachers' perspectives." Professional development in Education 44.4 (2018): 557-569.
- [7] Ulla, Mark B., William F. Perales, and Veronico N. Tarrayo. "Integrating Internet-based applications in English language teaching: Teacher practices in a Thai university." Issues in Educational Research 30.1 (2020): 365-378.
- [8] Hashemi, Aminuddin, and Si Na Kew. "The barriers to the use of ICT in English language teaching: A systematic literature review." Bilgi ve İletişim Teknolojileri Dergisi 3.1 (2021): 77-88.
- [9] Johnson, Karen E., and Paula R. Golombek. "Informing and transforming language teacher education pedagogy." Language Teaching Research 24.1 (2020): 116-127.
- [10] Sari, Ima Frafika. "Online learning for English language teaching." EDUKASIA: Jurnal Pendidikan Dan Pembelajaran 1.2 (2020): 216-230.
- [11] Erarslan, Ali. "Strengths and weaknesses of primary school English language teaching programs in Turkey: Issues regarding program components." Eurasian Journal of Applied Linguistics 4.2 (2018): 325-347.
- [12] Thompson, Gene, and Karen Woodman. "Exploring Japanese high school English teachers' foreign language teacher efficacy beliefs." Asia-Pacific Journal of Teacher Education 47.1 (2019): 48-65.
- [13] Ciptaningrum, Dyah Setyowati. "The development of the survey of technology use, teaching, and technology-related learning experiences among pre-service English language teachers in Indonesia." Journal of Foreign Language Teaching and Learning 2.2 (2017): 11-26.
- [14] Ramjattan, Vijay A. "Racist nativist microaggressions and the professional resistance of racialized English language teachers in Toronto." Race Ethnicity and Education 22.3 (2019): 374-390. [15] Davison, Megan Dunn, and Cathy Huaqing Qi. "Language teaching strategies for preschool English learners." Perspectives of the ASHA Special Interest Groups 2.1 (2017): 170-178.
- [16] Ahmadi, Dr, and Mohammad Reza. "The use of technology in English language learning: A literature review." International Journal of Research in English Education 3.2 (2018): 115-125.
- [17] Mei, Bing, Gavin TL Brown, and Timothy Teo. "Toward an understanding of preservice English as a Foreign Language teachers' acceptance of computer-assisted language learning 2.0 in the People's Republic of China." Journal of Educational Computing Research 56.1 (2018): 74-104.
- [18] Nomnian, Singhanat, and Thithimadee Arphattananon. "School Administrators' Competencies for Effective English Language Teaching and Learning in Thai Government Primary Schools." IAFOR Journal of Education 6.2 (2018): 51-69.
- [19] Richards, Jack C. "Teaching English through English: Proficiency, pedagogy and performance." RELC Journal 48.1 (2017): 7-30.
- [20] Gilakjani, Abbas Pourhosein. "A review of the literature on the integration of technology into the learning and teaching of English language skills." International Journal of English Linguistics 7.5 (2017): 95-106.
- [21] Wu X. AHP-BP-Based Algorithms for Teaching Quality Evaluation of Flipped English Classrooms in the Context of New Media Communication. International Journal of Information Technologies and Systems Approach, 2023, 16(2), 1-12.