Unleashing English Learning in Chinese Primary Schools: How IWBs Transform the Classroom

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Abstract

In the dynamic landscape of educational informatization, the advent of modern educational tools has revolutionized teaching methodologies. Interactive Whiteboard (IWB), especially when powered by EasiNote 5 (EN5), has emerged as a game-changer in primary school English teaching in China. Grounded in constructivism theory and multiple intelligence theory, this study delves into how EN5-powered IWBs are unlocking the full potential of English learning for young learners. Given the unique features and functions of EN5, tailored teaching principles and strategies have been developed to meet the distinct needs of primary school students. Through a comprehensive course design and student feedback, it becomes evident that the integration of EN5 into primary school English classrooms is a catalyst for transformation, which optimizes teaching activities to a great extent and breathes new life into the classroom atmosphere. This research strongly advocates that the government and schools should allocate more resources for educational technology development.

Keywords

Interactive whiteboard; EN5; primary school English teaching; teaching transformation

1. Introduction

In today's educational landscape, the application of educational technology is of paramount importance. As the field of education continues to evolve, innovative tools are needed to enhance the learning experience. Interactive whiteboard (IWB), defined as "a large, touch-sensitive board which is connected to a digital projector" (Higgins, 2005, p. 102), has emerged as a crucial element in primary school English classrooms. The key feature of IWB is its ability to "control the computer at the touch of the screen" (Smith et al., 2005, p. 91), which enables interaction between teachers and students, enhancing the learning experience. A combination of hardware and software allows for the display and manipulation of digital content. Different from traditional trinity teaching model of "chalk+blackboard+eraser", IWB could be called a revolutionary change (Wang, 2002). In an era of globalization, proficiency in English is essential for students to communicate and compete on a global scale. Traditional teaching methods may not always meet the diverse learning needs of students. With the increasing demand for innovative teaching methods, the application of IWBs in primary school English teaching holds great significance. By integrating digital resources such as texts, graphics, videos, and courseware, IWBs make learning more engaging and interactive. It not only meets the diverse learning needs of students but also improves teaching effectiveness, especially for young English learners.

The advent of educational informatization is a challenge to education. In order to meet this challenge, China has formulated a series of policies accordingly. The government is not only constantly improving the infrastructure construction of education in primary and secondary schools, but also committed to promoting the integration of educational technology and various disciplines. However, in most areas of China, especially some remote and backward areas, primary school English teaching is still based on the traditional model, largely dependent on presentation, practice, and production. In a forty-minute English class, most of the time is under the control of the teacher, inputting the language skills, and then the students follow the examples, imitating and practicing mechanically. In the stage of production, students only have a small amount of time to express what they have learned. This traditional model cannot fully and effectively arouse the interest of students, who may lose their passion and enthusiasm for learning English, leading to failure in English skills like listening, speaking, reading, and writing. Considering the age and the adventurous nature of students in primary schools, we believe English teaching in primary school should be lively and interesting, and the diversified forms of teaching should be adopted as well.

EasiNote5, namely Seewoo Whiteboard 5, is an interactive multimedia teaching platform independently developed by Seewo company and designed for information-based teaching. It is a comprehensive teaching tool that combines multiple functions, providing a platform where teachers can create and present teaching content in an intuitive and engaging manner. The software is cloud-based, allowing users to access and store teaching materials conveniently. The background for the application of EN5 lies in the growing need for effective language teaching methods. In an era of globalization, proficiency in English is essential for students to communicate and compete on a global scale. Traditional teaching methods may not always meet the diverse learning needs of students. EN5 offers a solution by providing a variety of interactive and engaging learning resources.

The purpose of this paper is to analyze the application of EN5 in primary school English teaching in China and explore proper teaching principles and methods to cater to the needs of students at an early stage. The objectives are to provide practical suggestions for teachers to make better use of EN5 and to promote the development of English teaching in primary schools. It has been a trend to integrate modern educational technology like IWB into English teaching. The application of EN5 can greatly increase the interaction channels between teachers and students, and help to establish a better relationship between teachers and students. More importantly, it is in line with the current teaching reform, which attaches great importance to the cultivation of students' practical ability and innovative spirit.

2. Studies on IWB in Education

Reviewing existing research on the use of IWB in different educational settings reveals valuable insights. In the realm of different levels of schools, from primary school to higher education, several studies have explored the application of IWB.

Canada's SMART-board company was the first company to successfully develop an electronic whiteboard in 1991, but the initial application was mostly in commercial fields, such as office meetings (Shi et al., 2012). It was not welcomed at the very beginning, and the sales of this product were not satisfactory at all. Later on, the IWB was introduced into the field of education. At present, almost every school in the UK is equipped with IWBs. This rapid development has also been supported and recognized by many parties. In the later period, Britain established the National Whiteboard Network, aiming to provide resources and technical support for teachers using IWBs (Beanehamp, 2004). Many countries in Europe, America, and Asia have also introduced IWBs into the classroom. Based on these practical applications, a series of studies on IWB and its effect on teachers and students have been carried on.

Some researchers have focused on the characteristics of IWBs. They believe the core feature of IWB in teaching is its interactivity. Tanner et al. (2007) divided the interactivity of IWBs into the following three categories, namely: technical interaction: emphasizing the interaction of the technical functions of the IWB; physical interaction: focus on the operations that students carried out on IWB; conceptual interaction: referring to timely feedback and even construction of the concepts and viewpoints of the course, which enables students to have a good understanding of the core knowledge of the subject.

More researchers showed greater interest in the effect of the application of IWBs in teaching. Their studies have covered different levels of education and focused on different subjects, especially language learning. For example,

Zhang et al. (2011) conducted a thorough study on the application of IWB in networking teaching. They believed that the use of IWB in multimedia network classrooms makes up a whole interactive instruction system, which can largely raise the interactivity and interest of teaching, so as to make teaching more efficient. Their study proved that the introduction of IWB into network classroom can provide a circumstance of shared cooperative classroom teaching for scattered teachers and students online, which help to increase students' participatory and initiative in teaching process. Katwibun (2013) investigated the effects of using an IWB in vocabulary teaching for high school students in Thailand. By offering 3 IWB instructional media packets to 51 11th-grade students, the result indicated that after using the IWB, the students' vocabulary knowledge, participation, and attitude were at a very good level. Teng (2021) explored the potential effects of collaborative writing supported by IWB technology on 120 college students' writing performance. The results showed that learners receiving IWB-integrated collaborative writing instruction exhibited higher levels of metacognitive activities and were more engaged in co-regulation.

Besides the focus on students' response towards IWB, Luo et al. (2023) attached their importance on how ESL teachers understand the perceived usefulness of the Seewo IWB. They divided 80 ESL teachers into 16 groups and conducted a focus group interview with each group. The study suggested that teachers shall not focus too much on the entertainment provided by IWBs, or only treat IWBs as ordinary information presentation tools. In other words, they need to learn how to use the IWB better in ESL classrooms, so as to make full use of the IWB.

IWB is not only effective in language teaching classrooms, but can also be applied to skills training in other fields. For example, Reibel et al. (2024) studied the use of IWB in a didactic classroom for 89 prelicensure sophomore nursing students in America. They found that the implementation of IWB technology can develop students' clinical judgment skills by providing a visual platform for the early identification of patterns and cues, facilitating team communication, and collaborative decision-making.

As for the situation in China, with an increasing emphasis on modern multimedia technology and constant teaching reform, relevant companies and scholars began to pay attention to the benefits of applying IWB in education. Relatively developed areas in China, like Beijing, Shanghai, and Guangzhou, took the pioneering role in conducting this reform. Governments and educational institutions put considerable investments into the development of this new educational technology. Various scholars and technological experts strive to figure out its working mechanism and functions, including the manufacturing of hardware and design of software, so as to offer guidance for teachers to understand how IWB could be used in their classes. For example, Ding and Jiang (2005) gave a detailed introduction of the basic concepts and principles of IWB, offering examples of integration courses in various disciplines, including Chinese, mathematics, physics, chemistry, art, and even physical education.

However, due to the lack of theoretical support and practical experience, the application of IWB in China has not been widely adopted. Even for those who have already applied IWB in their classes, the technology does not function to its utmost. Li et al. (2009) combed the current status of IWB use in primary and secondary schools, and further discussed possible reasons for the restriction of IWB application. Considering the existing problems, they proposed certain strategies to improve and promote the application of IWB in primary and secondary schools. Taking some specific subjects like Chinese and mathematics as examples, Gao (2010) examined how theoretical support, technical support, and the teaching process of the "interactively generated teaching model" could be integrated to achieve a better teaching result. Ma's (2011) study has proved the benefits of applying IWB in teaching. He pointed out, "the teaching mode of autonomous learning classroom based on interactive whiteboard has improved the students' collaborative communication ability to a certain extent."

Findings from these practice and studies have indicated that application of IWB can significantly enhance the learning experiences and improve teaching effectiveness, which serves as a solid foundation for the present study. However, the application of IWB in English teaching in primary schools is still not well explored in China yet. Without special training and guidance, teachers may struggle to incorporate the software effectively into their lesson plans. Technical issues such as software glitches or compatibility problems can also arise, which can disrupt the learning process. Besides, it still remains a big problem to ensure that young students use EN5 appropriately and do not get distracted by other online activities. As a result, we firmly believe that further exploration and excavation targeting primary school students are needed. Students in primary schools are normally between 6-12 years old. With a curious and adventurous nature, these students will be more easily attracted by a lively and engaged learning atmosphere. Due to its potential to engage learners and enhance learning achievements, IWB can be viewed as a perfect assistance in English teaching in primary schools. The present study is to explore the application of IWB in

English teaching in primary schools in China, EasiNote5 (EN5) being taken as an example of IWB. Following the introduction of EN5 into English classrooms in primary schools, we believe proper teaching principles and special teaching methods should be well-designed to fit the specific teaching content and cater to the needs of students in primary schools. We hope the present study could shed some light on the better use of IWB in the English teaching and learning process in China.

3. Theoretical Basis

3.1 Constructivism theory

Constructivism theory, first proposed by Piaget, is an important branch of cognitive learning theory. It emerged in the late 1980s and early 1990s, and later, Kohlberg and Vygotsky enriched and developed constructivism, making it a relatively complete learning theory. In this theory, learning cannot rely on knowledge instillation, but under certain circumstances and resource assistance, and with the participation of teachers or people, learners can construct different levels of knowledge, and finally form their own. That is, language learning is realized through interpersonal collaboration and interaction in a certain context. Based on constructivism, the learning process is composed of four key elements: context, collaboration, dialogue, and construction of meaning (He, 1998).

Constructivism's concept of creating a context coincides with the reality of English teaching based on EN5, providing a solid theoretical basis for this study. EN5 integrates the functions of a blackboard, a projector, and a computer, together with a resource library. With its rich functions and a large number of resources, EN5 can create intuitive and concrete contexts for primary school English teaching from the perspective of a constructivist context, which is conducive to stimulating students' own knowledge and experience. EN5 promotes the multiple interactions between teachers and students, students and humans and machines. It allows teachers and students to directly operate, such as annotating the teaching content on EN5, which is not only conducive to students' active exploration and discovery, but also provides timely feedback on learning information to teachers. It is quite convenient for teachers to adjust teaching strategies and promote students' knowledge construction.

Similarly, primary school English teaching focuses on interaction and meaning construction, from the previous boring teaching to the current fresh and vivid teaching. Students have also changed from "passive acceptance" in the past to "active construction" in the present. In the teaching process, teachers should use EN5 to design a variety of teaching activities, mobilize students' participation to the greatest extent, so as to improve their interactive behavior in the classroom and make the classroom more active.

3.2 Multiple intelligence theory

The theory of multiple intelligences was put forward by Howard Gardner in 1983, which offers a new perspective on the study of human intelligence and exerts a profound influence on fields such as education and psychology. Gardner (1983) believes that intelligence is not a single, quantifiable ability, but is composed of multiple different types of intelligences. These intelligences are both independent and interact with each other, jointly constituting human cognitive abilities. Everyone possesses these intelligences, but their forms of expression and degrees of development vary from person to person. The theory has had a profound impact on the field of education, driving the transformation of educational concepts and the innovation of teaching methods. It enables educators to pay more attention to the comprehensive development and individual differences of students, providing theoretical support for cultivating diversified talents with innovative spirits and practical abilities.

Based on this theory, teachers shall adopt a variety of teaching methods to stimulate students' different intelligences. For example, activities such as role-playing and field trips can be used to cultivate students' bodily-kinesthetic intelligence and interpersonal intelligence. Art forms like music and painting can be utilized to promote the development of students' musical intelligence and spatial intelligence. The diversification of intelligence does not mean equalization, while the development of each kind of intelligence is unbalanced and has individual differences. The theory of multiple intelligences suggests that the key to students' intellectual development lies in teaching students in accordance with their aptitude.

The evaluation of students' performance shall also be reformed. Traditional educational assessments often rely too much on standardized tests, which mainly measure students' linguistic and logical-mathematical intelligences. The Theory of multiple intelligences advocates the establishment of a diversified evaluation system that

comprehensively takes into account students' performance in various intelligence domains, so as to evaluate students' learning achievements and potential more comprehensively and objectively. Gardner believes that there are no poor students in the school, and education should also be based on a positive and equal view of students. As a result, teachers should teach students in accordance with their respective characteristics and development, and at the same time, adopt different evaluation methods for each child, so as to evaluate and monitor the different levels of intellectual development of each one.

Taking Constructivism and Multiple intelligence theory as the basis, the following part will be focused on the interaction and meaning construction in teaching with multiple intelligent goals when applying EN5 to English teaching in primary schools.

4. Application of EN5 in English Teaching for Primary School Students

Drawing upon the tenets of constructivism and the theory of multiple intelligences, specific pedagogical principles and distinctive teaching strategies are proposed. These are designed to optimize the utilization of EN5, unlocking its full potential in the educational context. Additionally, a comprehensive course design centered around EN5 is provided as a reference, aiming to offer practical guidance and inspiration for teachers seeking to integrate this technology into their teaching practices, thereby enhancing the learning experience and outcomes for students.

4.1 EN5-based pedagogical principles

In light of the unique functions offered by EN5 and the distinct characteristics inherent in primary school English classrooms, a set of teaching design principles has been formulated. The aim is to enable educators to harness the capabilities of EN5 in a more efficient and impactful manner, thereby enhancing the overall quality of English instruction and facilitating a more engaging and fruitful learning experience for young students.

4.1.1 Interactivity
With the integration of IWBs into the classroom, the interaction of classroom teaching has been changed correspondingly, which is mainly manifested in interactive types such as teacher-student interaction, student-student interaction, and human-computer interaction (Du, 2019). The most prominent edge of EN5 over other courseware production software lies in its robust interactivity, which sets it apart and makes it stand out in the educational technology landscape. As Abdala (2024) stated, diversified materials in the teaching and learning of the English language are of great importance, particularly for encouraging communication between teachers and their students and among students. With various materials offered by EN5, its robust interactivity can never be overlooked.

4.1.2 Subjectivity
Subjectivity is a philosophical concept. In Marxist philosophy, the subject refers to a person who has the ability to know and practice (Li, 2005). As early as 1981, Gu put forward the proposition that "students are the main body of education" (cited in Wu, 2000). So far, the teaching philosophy of "students as the main body and teachers as the leaders" has been deeply rooted in the hearts of educators. When employing EN5 in classroom instruction, educators should focus on incorporating this concept into the teaching process. They need to transform the conventional "teacher-centered lecturing with passive student listening" approach into a "teacher-guided and student-centered learning" paradigm. This shift allows for a more engaging and active learning experience, where students take a more proactive role in their education, with the teacher facilitating and guiding their exploration and understanding of the subject matter.

4.1.3 Flexibility
Individuals vary in their thinking patterns, which in turn leads to differences in their understanding of questions and the sequence of knowledge acquisition. This variation gives rise to a certain degree of randomness in the generation of knowledge within the classroom setting. EN5 is designed with a particular focus on facilitating the spontaneous emergence of classroom knowledge. It offers a diverse range of functions, including but not limited to marking, dragging, masking, and erasing, which together enable the flexible and unscripted generation of knowledge.

During the teaching process that utilizes EN5, teachers are no longer confined to the traditional approach of simply playing through pre-prepared courseware from start to finish. Instead, they must comprehensively anticipate the various unforeseen "incidents" that might transpire during the course of instruction. By leveraging the

corresponding functions of EN5, teachers can adeptly manage and modify the courseware in a rational manner. This allows them to readily adjust the teaching sequence in real-time, in accordance with the students' learning progress and cognitive processes as they unfold during the class. Consequently, the classroom environment becomes more dynamic and adaptable, better catering to the diverse learning needs and rhythms of the students.

4.2 EN5-based teaching strategies

In light of the distinctive traits of primary school English subjects, the physical and mental characteristics of students, and the specific course content, pertinent teaching strategies are meticulously devised by integrating the unique characteristics and functions of EN5. This approach aims to create a more engaging and effective learning experience that aligns with the needs and capabilities of young learners, leveraging the capabilities of EN5 to enhance the teaching and learning process.

4.2.1 Stimulating students' interest in learning and improving their learning efficiency

In the traditional teaching paradigm, classrooms predominantly follow a one-way communication pattern where the teacher imparts knowledge through lecturing while students assume a passive listening role. Constrained by limited teaching methodologies and technological resources, students' active involvement and engagement within the classroom remain severely restricted. This lack of participation often leads to a decline in students' concentration levels and a waning interest in the learning process.

However, the advent of EN5 has significantly ameliorated this situation. By introducing a plethora of innovative features and interactive capabilities, it has effectively shattered the shackles of the traditional teaching model. EN5 empowers educators to adopt more dynamic and student-centered teaching approaches, fostering an environment that encourages active student participation, stimulates critical thinking, and reignites the spark of interest in learning. This technological advancement has thus revolutionized the educational landscape, bridging the gap between passive absorption and active engagement in the classroom.

For instance, the zoom function available in EN5 is highly effective in capturing students' attention. When teachers utilize it to emphasize crucial points, students' gazes are instinctively drawn to the magnified area, allowing them to effortlessly focus on and assimilate the essential knowledge as the magnifying glass traverses the content. Moreover, the masking function of EN5 offers an innovative teaching approach. Teachers can conceal key phrases or sentence patterns, heightening students' anticipation. Subsequently, the act of erasing the mask after students have attempted to answer or when it is appropriate to reveal the hidden information injects an element of mystery into the learning process. This not only piques students' interest but also aids in their knowledge acquisition.

Moreover, teachers can leverage the screen function of EN5 to kindle students' inquisitiveness regarding the subject matter. By presenting information in a strategic and engaging manner, it serves to fully engage and motivate students, thereby optimizing their learning experience and enthusiasm for the educational content. For example, in the context of vocabulary instruction, the teacher can skillfully employ the curtain function provided by EN5 to conceal the relevant pictures and ingeniously design an engaging word guessing game. Subsequently, students are actively motivated to venture their own guesses. During this interactive process, the teacher may invite a student to use a whiteboard marker to gradually unveil the hidden picture by pulling down the curtain bit by bit. As the image progressively emerges on the screen, students are given the freedom to spontaneously offer their answers at any moment. Through this dynamic and participatory approach, students' attention is not only captured but also reaches a remarkable level of concentration. They are not only able to effectively memorize new words but also concurrently review previously learned vocabulary, thereby reinforcing their overall language proficiency. This particular function not only significantly enhances students' active participation in the learning process but also offers them ample space for creative imagination. In doing so, it expands students' cognitive thinking abilities to a certain extent, fostering a more profound and comprehensive understanding of the subject matter.

4.2.2 Enlivening the classroom atmosphere and strengthening the interactivity of the classroom

In the realm of traditional multimedia teaching, teachers are often confined to delivering lessons based on pre-designed courseware. Typically, the questions incorporated are of the multiple-choice or short-answer variety. The common practice involves posing questions to students and subsequently revealing the answers by a simple click of the mouse. This rather standardized teaching procedure tends to be somewhat dull and unengaging, resulting in a relatively low level of student involvement.

However, by leveraging the drag-and-drop functionality within EN5 in tandem with the classroom activities feature, a new dimension of learning is introduced. This allows students to directly interact with the whiteboard, engaging in learning activities that are integrated within a game-like context. As a result, students are actively encouraged to participate in the classroom proceedings, effecting a transformation from passive recipients of knowledge to active participants, thereby enhancing the overall learning experience and promoting a more dynamic educational environment.

Primary school students, who are still developing cognitive abilities, are significantly influenced by their teachers (Wang et al., 2024). They are lively and active, unable to concentrate on one thing for a long time (Zhang, 2018). That is the reason why the occurrence of students being distracted during class is a prevalent issue. However, it is an undeniable fact that nearly all students exhibit a pronounced interest in games. Leveraging this aspect, teachers can capitalize on the distinctive classroom activities function embedded within EN5 to ingeniously devise a diverse array of game-based activities for instructional purposes. By integrating the knowledge imparted in the classroom with the engaging elements of games, teachers are able to effectively target and resonate with the students' interests, thereby enhancing their attention and participation levels in the learning process.

English acquisition demands a significant amount of rote memorization, which often appears dull and wearisome to students in primary schools. In order to render the learning process more accessible and engaging, teachers can utilize the classroom activities function, such as through the implementation of innovative game formats like the "fun category" or "super category". These can be employed to craft diverse and unique learning activities, presenting the classroom knowledge in an entertaining game-like guise. Students are then able to engage with the content by performing a variety of tasks on the whiteboard, leveraging the drag-and-drop functionality. This enables them to not only learn but also reinforce their understanding within the context of the game, making the educational experience more enjoyable and effective.

In the pursuit of English proficiency, English vocabulary serves as the bedrock of learning. However, it also poses significant challenges for many young students. The common practice among most students of simply rote memorizing words is not only time-consuming but also prone to rapid forgetting. To address this, teachers can employ the "knowledge matching" function, transforming various vocabularies into matching elements within a game-like context. This allows students to engage with and internalize new words in a more enjoyable and effective manner. Moreover, teachers can initiate "group competitions" to tap into students' competitive instincts and boost their enthusiasm. This approach ensures that even those students who typically struggle with learning, often referred to as "students with learning difficulties", are motivated to actively participate in the classroom activities. By leveraging these strategies, teachers can create a more inclusive and engaging learning environment, facilitating the acquisition and retention of English vocabulary.

4.2.3 Utilizing the unique functions of EN5 to improve the effectiveness of English teaching

In the realm of English teaching, the utilization of mind maps by teachers proves to be highly beneficial for students in discerning the interconnections among the knowledge they have acquired. Nevertheless, when it comes to employing traditional multimedia tools like PPT for the creation of mind maps, the process becomes rather arduous. The task of meticulously drawing text boxes, arrows, and braces is not only time-consuming but also demands a high level of precision.

Fortunately, the mind map template available in EN5 offers a streamlined solution, transforming the production process into a straightforward endeavor. Teachers are merely required to select their desired template and subsequently have the freedom to effortlessly add or subtract branches according to their instructional needs. This not only saves valuable time but also enhances the overall efficiency of the teaching preparation. Particularly in the design of learning objectives or learning summary courses, leveraging this unique feature of EN5 enables the creation of clear and coherent courseware. The logical flow and visual organization of the content allow students to quickly and easily grasp the essence of what they have learned, facilitating a more comprehensive understanding and retention of the knowledge.

Moreover, the board-in-board and annotation functions integrated into EN5 effectively bridge the gaps left by other multimedia software, such as PPT. These functions endow EN5 with the versatility and spontaneity reminiscent of a traditional blackboard. During the courseware presentation, should teachers encounter questions, errors, or knowledge points that warrant emphasis, they can readily resort to the board-in-board and annotation tools. By providing handwritten feedback and annotations, similar to the act of writing on a physical blackboard, teachers can

more effectively engage with students, address their concerns in real-time, and ultimately enhance the overall efficiency and effectiveness of the classroom teaching experience. This dynamic and interactive approach not only enriches the learning process but also fosters a more conducive and collaborative classroom environment.

4.3 A course teaching plan based on the application of EN5

In light of the teaching design principles and strategies mentioned previously, we have attempted to present how an English class is given to sixth-grade students following a specially designed course teaching plan based on the application of EN5. The teaching design of this course is predicated upon the age-specific traits and cognitive capabilities of sixth-grade students. It meticulously formulates teaching activities aimed at enhancing students' English listening and speaking proficiencies. By leveraging the capabilities of EN5, a diverse array of teaching activities is organized to engage and activate multiple senses, thereby effectively guiding students to assimilate and apply new language materials, enabling them to express and communicate with unrestricted fluency. The teaching material is listed in the Appendix. The topic of this class is about "Feeling".

4.3.1 Teaching objectives

The *English Curriculum Standards* pointed out that "English teaching should be based on activities and encourage students to actively participate in classroom activities." Bearing this in mind, we believe that our teaching objective is to try to activate their learning enthusiasm and encourage their engagement in class with the help of EN5.

To begin with, students shall acquire the ability to listen to and articulate new words that are utilized to depict various "feelings", such as "angry", "afraid", "sad", "worried", and others. Subsequently, they become proficient in listening to and speaking the sentence pattern "How do you feel?" and providing corresponding answers in the form of "I feel...". Moreover, students can then comprehensively understand and effectively apply these newly learned words and sentence patterns in combination with their actual feelings, enabling them to express their emotions in a straightforward manner. Ultimately, students are empowered to nimbly utilize the acquired knowledge to successfully fulfill group cooperation tasks, thereby enhancing their overall language application and communication skills.

4.3.2 Teaching procedures

Step 1: Warming Up

Teaching Content: Sing a song, "If you're happy"
Prior to playing the song, the teacher takes advantage of the curtain function in EN5 to conceal the entire whiteboard. This prompts students to engage in speculation regarding what will be unveiled, subsequently moving the curtain upward to disclose the "mystery" – the introduction of a foreign teacher. This approach is designed to capture their attention and redirect any wandering focus back to the classroom setting.

The teacher then leads the students in singing the song and proceeds to inquire, "How do you feel about the song?" Students are likely to respond with words such as "happy", "glad", and the like. The act of playing the Flash song is advantageous in establishing a congenial learning environment for the students, laying the groundwork for the exploration of emotions within this lesson, and smoothly introducing the relevant topics.

Step 2: Presentation

Teaching Content: Listen to the music and talk about feelings
Initiate the activity by playing pre-arranged music clips, namely "Cup of Life" and "Blooming". These musical excerpts, possessing diverse degrees of emotional intensity, are strategically utilized to seize the students' auditory attention and subsequently trigger a rich tapestry of emotional responses within them.

Subsequently, the teacher assumes the role of a facilitator, guiding the students to draw upon their existing knowledge reservoirs to articulate and depict their personal emotional encounters. This process is deliberately designed to make students acutely aware of the limitations in their expressive capabilities when attempting to convey their current emotional states with precision and authenticity, owing to a paucity of vocabulary and linguistic constructs related to emotional expression. This realization serves as a catalyst, awakening within students the fundamental learning objective of understanding "why I should learn", thereby kindling their thirst for knowledge acquisition.

Throughout the learning journey, it is essential for students to not only possess a lucid comprehension of their learning goals but also to formulate corresponding and practical learning plans. This holistic approach ensures that students are actively engaged in the learning process, with a clear sense of direction and purpose, propelling them towards the attainment of enhanced language proficiency and emotional expressiveness.

Step 3: Practice

Teaching Content 1: Learn the dialogue and the new words together
Students engage in the task of listening and independently circling the words that are unfamiliar to them. Subsequently, the teacher proceeds to directly input the new vocabulary, namely "angry", "afraid", "sad", "worried", and "sick", onto the EN5 platform for the entire class to visually identify and phonetically read. The teacher then harnesses the combined capabilities of various EN5 tools, such as masking, erasing, zooming, and spotlight, to selectively conceal the words and sentences that demand particular attention regarding pronunciation rules. In a timely manner, the teacher offers commentary and provides an English-English translation, elucidating that "sick" is equivalent to "ill", thereby facilitating students' utilization of their pre-existing knowledge to assimilate the new term "ill". By employing the copy function within EN5, the teacher duplicates the word "afraid" and expounds upon the semantic distinction, emphasizing that "afraid" does not share the same meaning as "worried". Additionally, the teacher utilizes the drawing function of EN5 to initially sketch a smiley face and then resorts to the rotation function to pivot the expression by 180 degrees. This transformation reveals that the identical facial expression has transmuted from a jovial countenance to a displeased one, as illustrated in Figure 1.
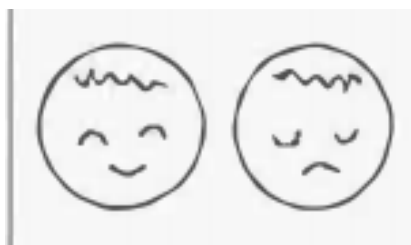

Figure 1. Smiling face vs. unhappy face.

Teaching Content 2: Watch the video
Students commence by attentively watching the video, endeavoring to figure out the answers to the following questions: What emotions does the farmer experience on Monday? And how does the cow feel on the same day? Subsequently, students listen to the audio recordings, this time without the visual aid of the video, and attempt to respond to the following questions: How does the farmer feel on Tuesday, and what is the underlying reason? Also, how does the cow feel on Tuesday and why? Finally, students revisit the video and complete the provided table (see Appendix 1). They are able to utilize the copy function to duplicate and then drag the words located on the left side of the table to their appropriate positions, thereby augmenting the level of human-computer interaction and enhancing the overall learning experience.

Teaching Content 3: Encourage students to express themselves freely
The teacher can summarize the content of the video by stating: "Feelings go up and down. Sometimes they are good, but sometimes they are bad." Subsequently, the students are motivated and inspired to convey their own emotions and experiences in the English language. To assist the students in integrating the acquired knowledge with real-life scenarios, the teacher can meticulously choose pictures that bear a close resemblance and relevance to their daily lives and subsequently construct vivid situations for them. Such scenarios might include achieving a flawless score in an examination, experiencing the thrill of riding a roller coaster at an amusement park, or undergoing dental treatment at the hospital. At this time, the students are expected to employ the thematic sentence patterns "How do you feel?" and "I feel..." to articulate and express their feelings and reactions. This approach not only reinforces their language skills but also fosters a practical application of the learned concepts, making the learning process more engaging and meaningful.

By creating a life-like situation, students can be inspired to combine the new knowledge learned in this lesson with their original cognition and organize it into richer, more flexible sentences. Each student has different

characteristics and development tendencies in terms of knowledge ability, psychological process, and personality. Consequently, teachers should not only be cognizant of the entire student body but also meticulously attend to the individual disparities among students. This entails tailoring instruction to suit each student's unique aptitude, thereby enabling students to achieve more optimal and comprehensive development.

By fully engaging in the practice, students will have successfully grasped the skills of expressing inquiries about feelings and providing corresponding responses. However, it is crucial that they place particular emphasis on adhering to the pronunciation rules and meticulously imitating the appropriate pronunciation and intonation, as these elements are integral to effective communication and language proficiency.

Via the design of this teaching activity, with the help of EN5, teachers assume the role of facilitators, leading students to authentically convey their emotions. By means of learning, students are empowered to judiciously and spontaneously select and employ sentences suitable for describing emotions and attitudes within diverse scenarios, thus exhibiting a comprehensive and coherent language thinking process. This, in turn, augments the efficacy of English teaching and initiates the cultivation of students' capabilities to holistically utilize language for both expression and communication, laying a solid foundation for their future language development and application.

4.4 Feedback from students

After the teaching, we conducted interviews with some students randomly chosen from the class, trying to know how they feel about the introduction of EN5 into the classroom. During the interview, all students agreed that EN5 enriches classroom activities and increases opportunities for students to come on stage. As student A has mentioned: "There are a lot of pair games in class. My friends will invite me to go to the stage to complete the game". She and her partner are quite active in participating in games.

Students also think that EN5 is helpful for mastering knowledge points. Student B said: "A lot of knowledge is embedded and presented in games, which is easy to understand and quite interesting." It is well known that an important task for students in the classroom is to master knowledge, and the application of EN5 greatly helps in knowledge mastery. More importantly, students believe that the use of EN5 in the classroom will help them stimulate their interest in learning, guide them to think actively, and make them more willing to participate in classroom activities.

On the whole, students prefer teaching based on EN5. English teaching based on EN5 can increase the fun of teaching, and it has an obvious effect on improving students' learning. Their answers have proved that the application of EN5 in Chinese primary school English teaching holds great potential. By leveraging this educational tool, educators can enhance the quality of language teaching and help students achieve better learning outcomes.

5. Conclusion

Based on the theory of constructivism and multiple intelligences, this article discusses the application of EN5 in English teaching for primary schools in China. Guided by specific teaching principles and strategies, we design a teaching plan and give it to students. From our practice and students' feedback, we believe that the application of EN5 will inject new impetus and vitality into primary school English teaching. On the one hand, it can enhance students' motivation and interest in learning English. With its colorful interfaces and interactive activities, EN5 makes learning fun and engaging. On the other hand, EN5 brings benefits for teachers too. It can save time and effort in lesson preparation and grading. Teachers can use the software's pre-designed activities and assessment tools to streamline their teaching process.

In order to better utilize the role of EN5 in primary school English classrooms, efforts are still needed from various parties, such as the government, schools, and teachers. First, the government shall allocate more funds for educational technology research and development, ensuring the continuous improvement and optimization of software like EN5. The government can also organize professional training programs for teachers on a larger scale. Schools, on the other hand, should actively promote the use of EN5 in the curriculum. They can arrange regular in-house training sessions and workshops for teachers to share best practices and experiences in using EN5. This collaborative learning environment within the school can encourage teachers to explore new ways of teaching and learning with the software. As for teachers, they should continuously explore and innovate in their teaching methods with the help of EN5. They can design more personalized and interactive lessons by leveraging the various functions of EN5.

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Disclosure of Interest

Hereby, we declare that there is no conflict of interest regarding the publication of this article.

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Appendix 1. Teaching Material

Exercise:

	How does…feel?
Mr. Kevin	
The chick	
The girl	
The boy	
The dog	