

# The Practice of Digital Technology Enabling English Classroom Teaching in Senior High School

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**Abstract:** As digital technology becomes increasingly integrated with education, emerging technologies such as cloud computing, artificial intelligence, and big data are playing a more crucial role in senior high school English classroom instruction. The extensive adoption of these technological advancements has opened up new opportunities for innovating high school English teaching practices while expanding the range of resources and tools available to teachers for curriculum development. In this scenario, educators should recognize the supportive potential of digital technology in high school English teaching and enhance the application of relevant educational approaches through diverse strategies. This paper first explores the importance of leveraging digital technology in high school English classroom teaching. It then proposes practical approaches for integrating digital technology into various aspects of teaching, including textbook design, instructional format innovation, assessment methods, and resource development, based on real-world experiences. The aim is to provide valuable insights for fellow educators.

**Keywords:** Digital technology; Senior high school; English classroom teaching; Practical path empowerment

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## 1. Introduction

In the context of the Internet era, educators should emphasize the enhancing role of digital technology in senior high school English instruction, facilitating the advanced development of vocational English teaching and addressing the existing challenges and gaps in current educational practices and curricula. This necessitates that teachers precisely understand the integration and co-development relationship between digital technology and education, transform students' learning experiences via high school digital English teaching methods, and motivate them to expand their thinking and enhance their language skills during the process of autonomous knowledge building.

## **2. The necessity of digital technology to enable high school English classroom teaching**

Through the integration of digital technology into high school English classroom instruction, educators seek to incorporate the innovative value and momentum generated by advancements in digital technology throughout all aspects of teaching. This approach not only facilitates the transformation of teaching methodologies and resources but also better aligns with students' learning requirements. In the age of the Internet, leveraging digital technology within high school English classrooms is crucial. It prepares the groundwork for reforming textbooks and teaching strategies, fosters innovation in English education, and supports teachers in establishing a new teaching paradigm that combines human intelligence with machine coordination <sup>[1]</sup>. On one hand, the adoption of digital tools promotes the evolution of high school English textbooks and pedagogical approaches, offering an intrinsic impetus for reform in these areas. By utilizing various achievements in digital technology, educators can design novel textbook formats and construct digital teaching frameworks, thereby achieving synergy between artificial and human intelligence in English instruction <sup>[2]</sup>. This represents a novel instructional model based on "human-technology collaboration," leveraging advancements in cloud computing, 5G, big data, and artificial intelligence. It overcomes the limitations of standardized English curriculum design that have persisted since Industry 2.0, introducing a teaching framework that better accommodates students' individual learning needs and content variety. Additionally, it enhances accessibility for students studying English courses. Furthermore, the integration of digital tools into high school English instruction has given rise to the notion of digitalized teaching. This development encourages educators to reassess their roles in facilitating students' English learning journeys and redefine their contributions within the teaching process <sup>[3]</sup>. As digital technology empowers high school English classrooms, transformative innovation in this field has been ignited. A digitally integrated English classroom characterized by "human-machine synergy" has emerged, enabling teachers to transition naturally from being mere technology users to becoming active collaborators with technology. In this new paradigm, they work alongside advanced technologies and equipment to deliver English instruction effectively <sup>[4]</sup>.

## **3. Digital technology enables high school English classroom teaching paths**

### **3.1. Develop new teaching materials and break the shackles of teaching materials**

As a language subject, high school English has both practical functions, and its learning process is often closely related to students' real life <sup>[5]</sup>. However, due to the constraints of teaching materials, the traditional teaching mode of senior high school English is often more theoretical and lacks life elements, which makes it difficult to fully mobilize students' interest in learning. Under the background of the Internet era, teachers should attach importance to the role of digital technology in enabling senior high school English classroom teaching. Through the development of new textbooks, senior high school English teaching can break through this constraint and connect with students' real life more closely <sup>[6]</sup>. Take the teaching of the 2019 edition of senior high school English textbooks as an example, teachers can develop new textbooks based on the contents of the original textbooks, and apply mobile devices and ai intelligent tools into daily teaching to diversify the forms of students' learning activities and bring them a richer learning experience full of life. Compared with the general teaching media, mobile devices have the advantages of mobility and portability, which can free students from the constraints of time and space in English learning, and can help students obtain massive learning resources to meet their personalized English learning needs. For example, teachers can build a two-way communication mechanism between teachers and students and an online feedback mechanism through mobile devices, answer questions for

students anytime and anywhere, guide them to learn English knowledge, and extend course teaching to students' lives <sup>[7]</sup>. On this basis, teachers can also guide students to install AI tools on mobile devices and guide students to conduct oral practice in class. Students can use it as a "sparring partner" and have a "dialogue" with it based on the life scenes constructed by the teacher. In the process of "dialogue", the intelligent recognition function of the AI tool can automatically analyze the content of the students' "said," interact with them, judge the accuracy of the students' pronunciation and expression, and give corresponding guidance for their shortcomings in oral English <sup>[8]</sup>.

### **3.2. Innovate teaching forms to stimulate interest in exploration**

In the integration with high school English classroom instruction, digital technology has introduced diverse teaching methods, thereby increasing the appeal of educational activities to students. Notably, cutting-edge technologies like MR, AR, and VR offer teachers the technical foundation to experiment with innovative teaching approaches and design immersive learning environments, making high school English studies more engaging. By utilizing these advanced tools, educators can recreate the scenarios outlined in texts, enabling students to engage in dialogues within virtual settings and develop a precise comprehension of vocabulary, sentences, and paragraphs. For instance, high school English textbooks often address the differentiation between certain forms and terms <sup>[9]</sup>. Traditional teaching methods often pose challenges for teachers in helping students effectively comprehend and internalize knowledge points. However, by creating virtual environments, students can grasp forms and meanings based on specific scenarios, thereby accurately identifying similarities and differences. As students "engage" in dialogues, they transition from being passive "recipients" of knowledge to active inquirers and applicators. This shift provides them with a wider scope for independent thought, enabling them to precisely convey meaning using the English vocabulary they have learned, contextualized within specific situations. Through this process, students revisit the essence of "speaking" in oral English learning, understand word meanings through an "application-oriented" lens, explore nuanced distinctions between forms and similar words, and ultimately achieve the ability to "speak confidently" and "speak proficiently," building upon the foundation of "speaking correctly." Teachers should skillfully leverage digital technology to enhance high school English classroom instruction, fostering a dynamic and multidimensional approach to English learning and inspiring greater interest and engagement in English courses <sup>[10]</sup>.

### **3.3. Improve the teaching evaluation model and solve the core problems**

Due to the lack of a language environment, the process of students learning high school English courses is often complicated. In order to help students solve the core problems in learning, teachers should give full play to the enabling role of digital technology and improve the teaching evaluation model to obtain more objective and comprehensive evaluation results <sup>[11]</sup>. When teaching a unit in the textbook, teachers can use big data analysis technology and learning analysis technology (LA) to carry out real-time dynamic monitoring on the whole process of students learning the text, evaluate the students' learning behavior and results according to the monitoring information, and guide the students to optimize the learning mode and improve the knowledge structure <sup>[12]</sup>. In this way, teachers can cover students' learning process and results with teaching evaluation, which can evaluate and diagnose students' learning situation more accurately and comprehensively, and help students to understand their shortcomings in the English learning process and then correct them. In addition, by evaluating students' learning of this unit, teachers can predict the main difficulties that students may encounter in subsequent learning, and make corresponding adjustments when constructing the teaching mode. According to the prediction of students' learning, teachers can choose teaching methods, make teaching courseware, and provide students

with personalized learning fields, which can further improve students' learning efficiency and experience <sup>[13]</sup>.

### **3.4. Develop new teaching resources and improve teaching quality**

The development and application of new teaching resources is a key step in the process of teachers seeking high-quality development of high school English teaching by strengthening the application of digital technology. Teachers should pay full attention to the role of digital technology in the development of English teaching resources, optimize the way of classroom construction through more intuitive and vivid digital teaching resources, and further improve the quality of English teaching. For example, when teaching the text of "Food and Culture", teachers can guide students to clarify the learning focus of the text, explore the relationship between food and culture, and cultivate students' awareness of cross-cultural communication by playing micro-lessons and using PPT to display mind maps <sup>[14]</sup>. First of all, in the process of introducing the text, teachers should use the big screen to present the mind map of the text content, guide students to read the text in combination with the mind map, analyze the cultural phenomena involved in it, and form a specific cognition of its content and viewpoints. Based on students' overall understanding of the text, guide them to study English knowledge from the vocabulary and grammar level to the cultural level, which can reduce the difficulty of students' learning and help them to master the knowledge of this unit step by step. Secondly, teachers should use micro-class teaching resources to help students understand cultural phenomena in detail, deeply perceive the reflection of Chinese and Western cultural differences in food, and cultivate students' awareness of cross-cultural communication. Compared with traditional teaching resources, micro-lessons can convey a large amount of information in just a few minutes and construct an intuitive language situation, which can fully stimulate students' thinking and emotions, form a stronger desire for expression and sharing, and then actively participate in class discussions to realize active exploration and construction of relevant knowledge <sup>[15]</sup>.

### **3.5. Create a harmonious ecological field for human and technical development to promote efficient learning**

In the integration of digital technology into high school English classroom teaching, teachers must focus not only on leveraging technological strengths but also on preventing the neglect of alignment between teaching methods and students' genuine needs in the pursuit of innovation. This necessitates adherence to the principle of "technology serving pedagogy," fostering a balanced ecosystem where humans and technology coexist through the judicious application of digital tools. Such an approach ensures adequate support for students learning high school English courses. More specifically, when incorporating digital technology into senior high school English instruction, teachers should prioritize students' holistic development. This means ensuring that the transformation of digital spaces and the upgrading of teaching technologies consistently align with and serve the broader developmental needs of students. By doing so, teachers can facilitate the cultivation of students' core competencies across various dimensions. During the teaching process, educators can utilize assessment outcomes to identify students' specific learning requirements. Based on these insights, they can strategically integrate digital tools into instructional activities. This practice endows digital technology with the value-oriented principle of being "student-centered" while enabling it to effectively contribute its technical advantages toward promoting students' comprehensive growth. The integration of digital technology into high school English classroom instruction adheres to educational principles while prioritizing students' actual requirements. This approach effectively prevents issues such as digital technology overshadowing human interaction or treating individuals as mere objects, ensuring that digital tools genuinely support student learning and serve as a key driver for



enhancing their effectiveness. Teachers should design digital English lessons tailored to students' specific learning situations, considering their role in blending virtual and real-time collaborative teaching environments. Additionally, they can leverage the technical capabilities of various digital teaching platforms and resources. By creating virtual scenarios aligned with classroom themes, teachers can seamlessly integrate online instruction with traditional teaching methods, guiding students to convert their “hands-on” experiences in virtual settings into improved language skills.

## 4. Conclusion

In conclusion, teachers need to adhere to the objective principles governing the development of senior high school English instruction and enhance the supportive role of digital technology in classroom teaching through suitable strategies. This will facilitate the digital advancement of senior high school English education and provide improved learning environments for students to expand their thinking and enhance their language skills. In particular, during regular teaching activities, educators should effectively utilize the novel resources and tools emerging from digital technological progress. They should accelerate the development of textbooks, innovate teaching methods, refine evaluation systems, and enrich teaching materials. By doing so, they can establish a harmonious ecosystem integrating human and technology and emphasize the practical benefits of digital technology within senior high school English classrooms.

## Disclosure statement

The author declares no conflict of interest.

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