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The Impact of Online Learning Platforms on Students' Listening and Speaking Skills

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Abstract. With the rapid development of information technology and the popularization of online learning platforms, the role in English listening and speaking instruction has become increasingly prominent. Traditional teaching models often fail to meet students' needs for these skills. Online platforms offer instant feedback, personalized exercises, and engaging designs, catering diverse age groups. However, existing research highlights single educational stages, lacking comparative analysis across age groups. This paper analyzes the impact of online learning platforms on the English listening and speaking skills of primary school, middle schooland university students, highlighting the differences among them. It examines both practical applications and existing problems. Studies show that age-stratified designs on online platforms effectively improve the listening and speaking skills to varying degrees. However, challenges like insufficient interactivity and differences in student self-discipline remain. Future efforts should optimize platform functions, combine traditional teaching methods, and designtailored solutions for different educational stages to enhance teaching outcomes.

Keywords: online learning platforms, English listening and speaking skills, age-group differences, educational technology, autonomous learning

1. Introduction

With the advancement in technology, online learning platforms have become essential for English listening and speaking teaching. However, traditional teaching models often struggle to meet students' personalized needs for listening and speaking training due to limited class time and monotonous methods. Online learning platforms provide instant feedback and adaptive exercises, allowing students to practice language communication in an authentic English environment [1]. They can also accurately assess learning performance, provide customized training content, and improve learning efficiency.

Recent research focus on the application of online learning platforms as supplementary tools for English instruction, showing improvements in student interest and autonomous learning abilities [2]. Additionally, the constructivist learning theory emphasizes contextualized learning environments, which are fully reflected in online platforms. Through interactive forms such as virtual dialogues and animated dubbing, these platforms create authentic language application scenarios for students [3]. However, existing research also finds significant differences in the adaptability of platform

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functions among students of different ages, particularly in cultivating autonomous learning abilities, which still faces challenges [4]. Although online learning platforms continue to innovate technologically, they must also integrate with traditional classroom teaching, especially in dimensions such as teacher-student interaction and emotional support [5].

This paper examines the impact of online learning platforms on the English listening and speaking skills of primary school, middle school, and university students, aiming to offer practical insights for English language teaching and further enhance their effectiveness of the platforms.

2. The impact of online learning platforms on primary school students' english listening and speaking skills

2.1. Constructivist learning theory

Constructivist learning theory holds that knowledge is not acquired through one-way transmission by teachers but is actively constructed by learners in specific contexts [6-7]. This theory emphasizes contextualized learning, social interaction, and cognitive construction, providing important guidance for online English listening and speaking teaching.

The first point is contextualized teaching. Constructivism advocates that language learning should take place in real or simulated communicative contexts [8]. Traditional English classrooms often lack authentic contexts. Online learning platforms, through virtual dialogues and simulated scenarios, allow learners to practice listening and speaking in near-real contexts, promoting deep internalization of knowledge. For example, AI voice assistants simulate daily conversations, helping learners master language functions in specific contexts rather than memorizing words and grammar in isolation. The second point is social interaction and collaborative learning. Vygotsky proposed the "Zone of Proximal Development" (ZPD) theory, emphasizing the key role of social interaction in cognitive development [7]. Online platforms provide interaction opportunities through language partner matching, multi-person online speaking practice, and real-time teacher feedback, enabling learners to adjust their language output during communication and gradually improve their expressive abilities. The third point is personalized knowledge construction. Piaget pointed out that learning is a process in which individuals actively explore and adjust cognitive structures based on existing experiences [6]. The adaptive learning systems of online platforms (such as AI intelligent recommendations) allow learners to adjust learning content according to their own pace, aligning with the constructivist concept of personalized learning.

2.2. Case analysis

In the application practice of the "17zuoye" platform, Li, a third-grade primary school teacher, assigned a "word repetition" homework task on the platform, including common fruit words such as "apple," "banana," and "grape." After completing the first exercise, the system-generated evaluation report showed that student Zhang Ming had problems with the pronunciation of "grape." Through the platform's instant feedback and error correction functions, Zhang Ming repeatedly listened to the standard pronunciation and practiced imitating it. In the second attempt, he scored 95 points, and in the third practice, he achieved a perfect score. This made him feel very proud and more proactive in learning. Through the platform's data analysis function, Teacher Li found that 12 students in the class had difficulty mastering the stress position of "banana," so she focused on explaining this pronunciation point in the next class.

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On the "Fun Dubbing for Kids English" platform, Wang Xiaohong, a fourth-grade student, chose the character Anna from "Frozen" for a dubbing exercise. The platform provided a sentence-by-sentence dubbing function for the original animation. Through repeated imitation of the character's pronunciation and intonation, Wang Xiaohong eventually completed a two-minute dubbing work. After sharing her work in the class community, she received 28 likes and 5 encouraging comments from classmates. This interactive experience confirmed Vygotsky's social constructivist theory that "learning is a social activity" [7]. Teacher Liu, the homeroom teacher, observed that since using the dubbing platform, students like Wang Xiaohong, who were originally too shy to speak up in class, were now more willing to participate in English conversation activities. In the recent unit test, the class's average oral English score increased by 15% compared to the previous semester, with particularly noticeable improvements in pronunciation and intonation accuracy. Many students said that this "learning through play" approach made them less afraid of making mistakes and more willing to express themselves in English.

It can be seen that online learning platforms provide new ideas and tools for primary school English listening and speaking teaching. Fun teaching methods make them more suitable for the learning characteristics of primary school students. However, their application still needs continuous optimization and improvement in practice to better assist primary school teaching.

3. The impact of online learning platforms on middle school students' english listening and speaking skills

3.1. Behaviorist learning theory

Behaviorist learning theory holds that learning is a process of establishing connections between stimuli and responses, emphasizing the shaping effect of the external environment on learning behavior [9-10]. The core concepts—reinforcement, conditioned reflexes, and feedback loops—provide guidance for online English listening and speaking teaching. First, Skinner's operant conditioning theory points out that positive reinforcement (such as immediate rewards and point incentives) can increase the probability of repeating target behaviors (such as correct pronunciation and fluent expression) [8]. Online learning platforms use mechanisms to reinforce learners' positive performance and enhance motivation. Second, Pavlov's classical conditioning theory shows that repeated stimulus-response pairings can form automatic behaviors [10]. Online English listening and speaking training helps learners establish conditioned reflexes between sounds and meanings through high-frequency repetitive exercises. Finally, behaviorism emphasizes the key role of immediate feedback in learning effectiveness [11]. Online platforms use AI to provide real-time error correction, enabling learners to immediately correct mistakes. Research shows that immediate feedback can improve language learning efficiency by more than 30% [12].

3.2. Case analysis

The case study selected two parallel classes in the first year of middle school, with Class 1-2 as the experimental class and Class 1-1 as the control class. Before the experiment, the researchers conducted uniform listening and speaking pre-tests for both classes to ensure comparable initial levels. The research tools mainly included the "Zhongxue Yiti" app, four standardized test papers (two for pre-test and two for post-test), and pre- and post-experiment questionnaires.

The experiment lasted for four months, starting in September 2024, and was divided into three stages. In the pre-experiment stage, listening and speaking pre-tests were conducted. In the mid-

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experiment stage, the experimental class used the "Zhongxue Yiti" app for auxiliary teaching, while the control class maintained traditional teaching. In the post-experiment stage, listening and speaking post-tests were conducted, and a post-experiment questionnaire was administered to the experimental class students. After statistical analysis of the data, the impact of the online learning platform on middle school students' English listening and speaking skills was verified.

The analysis results showed that the experimental class significantly outperformed the control class in both listening and speaking tests ($p < 0.05$). The improvement in listening skills was particularly notable, reflecting the promoting effect of the online learning platform. This result aligns with behaviorist learning theory, emphasizing that immediate feedback and intensive training help automate language skills [9]. The questionnaire results showed that 85% of students held a positive attitude toward the "Zhongxue Yiti" app, 82% believed their listening and speaking skills had significantly improved, and 78% were more willing to actively practice English listening and speaking. This indicates that the platform's gamified design (such as point rewards) aligns with behaviorist reinforcement theory and can effectively maintain learning motivation [10].

In summary, online learning platforms significantly improve English listening and speaking skills. Their immediate feedback and contextualized training compensate for the shortcomings of traditional classrooms. The positive changes in student attitudes and motivation enhance learning interest and self-efficacy, confirming the positive impact of computer-assisted language learning (CALL) [13]. It is recommended to adopt blended teaching (online platforms + offline guidance) to balance technological advantages with teachers' humanistic guidance. Based on behaviorist learning theory, this study confirms the promoting effect of online learning platforms on middle school English listening and speaking teaching and provides solid theoretical and practical evidence for the application of online language teaching platforms in middle school English teaching.

4. The impact of online learning platforms on university students' english listening and speaking skills

4.1. Autonomous learning theory

Based on autonomous learning theory, online learning platforms promote the development of university students' English listening and speaking skills by enhancing learners' initiative and self-management abilities. This theory emphasizes self-regulation in three dimensions: metacognition, motivation, and behavior [14]. Research finds that students in the experimental class exhibited stronger autonomous learning characteristics: 82% could independently plan study time and use the platform for fragmented practice; 85% actively listened to recordings to correct pronunciation; 78% developed personal learning plans. These findings validate the effectiveness of the autonomous learning cycle model.

The platform's functional design supports autonomous learning. Post-experiment questionnaires showed that students in the experimental class experienced a 27% increase in self-efficacy and a 35% increase in the frequency of learning strategy use, confirming the platform's role in cultivating autonomous learning abilities. Therefore, online learning platforms not only improve students' English listening and speaking proficiency but also foster autonomous learning abilities that benefit them throughout their lives, providing vital insights for language teaching in the information age.

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4.2. Case analysis

Based on autonomous learning theory, this study conducted an in-depth analysis of the use of the iTEST platform by non-English major students at Liupanshui Normal University. Through questionnaires and interviews, the research found that despite students' high acceptance of the "Internet +" learning model, the effectiveness of platform use varied significantly among individuals, reflecting the critical role of autonomous learning abilities. Case analysis showed that the first student successfully applied autonomous learning strategies, achieving excellent results in the CET-4 and CET-6 exams through metacognitive regulation (repeated intensive listening), resource management (using diverse materials), and motivation maintenance (finding suitable methods). This validates the autonomous learning cycle model [14]. In contrast, the second student, due to a lack of self-regulation ability, only completed basic tasks assigned by the teacher without actively setting goals or adjusting strategies, resulting in limited learning outcomes, which aligns with Pintrich's argument that motivation regulation failure affects learning effectiveness [15].

The research results yielded three important findings. First, the richness of platform resources must match students' autonomous learning abilities. Second, teacher guidance plays an irreplaceable role in cultivating students' self-regulation. Third, successful online learning requires the coordinated development of cognitive strategies, motivation regulation, and behavior management. These findings provide insights for online English teaching in universities: it is necessary to simultaneously strengthen the cultivation of students' autonomous learning abilities and build a dual-track model of "technical support + ability cultivation." Reducing lecture hours while incorporating mandatory online group work and weekly progress reporting (e.g., via Moodle) can significantly increase student engagement. A study in higher education engineering courses showed this approach improved final grades by 30% and self-reported effort by 22%, as it fosters accountability and peer collaboration [16]. However, instructors noted increased workload in grading learning journals compared to traditional exams [16].

In summary, online learning platforms such as iTEST play crucial roles in university students' English listening and speaking learning, providing abundant learning resources and flexible learning methods. However, the flexibility of online learning platforms offers personalized learning methods, but their effectiveness sometimes depends on students' autonomous learning awareness. Challenges such as weak autonomous learning awareness and insufficient teacher-student interaction remain. Therefore, by strengthening the cultivation of students' autonomous learning awareness, enhancing teacher-student interaction, and optimizing platform functions, the effectiveness of online learning platforms in English listening and speaking learning can be further improved.

5. Teaching implications

Based on the case analyses of students at three educational stages, the following important teaching implications can be drawn.

First, platform function design should be stratified and tailored to the characteristics of students at different educational stages. For primary school students, the focus should be on fun elements, such as animated dubbing and gamified learning, to fully stimulate their interest in learning [1]. For middle school students, it is necessary to closely align with exam requirements, emphasizing training for test-taking abilities, such as listening multiple-choice questions and topic-based speaking exercises [2]. For university students, richer learning resources should be provided, including academic lectures and film materials, while emphasizing the cultivation of autonomous learning abilities to prepare them for further studies or employment [5]. Second, it is essential to

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balance online learning and offline classroom teaching, combining online platforms as auxiliary tools with traditional classroom teaching. Teachers should provide guidance to promptly address problems encountered during the learning process. Third, special attention should be paid to the cultivation of students' autonomous learning abilities. Finally, continuous optimization of the platform's interactive functions is needed, such as adding online discussion and real-time feedback modules, to effectively address the limitations of online learning platforms in terms of interactivity.

6. Conclusion

Online learning platforms provide a new approach and tool for English listening and speaking teaching. Their instant feedback, personalized exercises, and engaging designs significantly enhance primary school students' interest, middle school students' test-taking abilities, and university students' autonomous learning efficiency. However, challenges such as insufficient interactivity and differences in student self-discipline remain. In the future, further optimization of platform functions is needed, combining the advantages of traditional teaching and designing differentiated solutions tailored to the characteristics of students at different educational stages to achieve more comprehensive teaching outcomes. Additionally, teachers should actively guide students to make reasonable use of platform resources, fully leveraging the potential of online learning to open broader paths for the cultivation of English listening and speaking skills and integrating them with their actual teaching to help students improve their English listening and speaking abilities.

However, this paper still has some shortcomings. For example, the lack of analysis on the impact of platform use by students from different cultural backgrounds may limit the generalizability of the research results.

Looking ahead, future research can focus on several promising areas. Firstly, the application of artificial intelligence technologies, such as speech recognition and adaptive learning systems, in online platforms should be explored to evaluate their role in promoting personalized learning. Secondly, longitudinal studies that span different educational stages should be conducted to systematically analyze the long-term impact patterns of online learning on language skill development. Thirdly, in-depth research on collaborative teaching models between online platforms and traditional classrooms is needed, with the goal of optimizing teacher-student interaction strategies in offline contexts. Lastly, future research should focus on psychological factors such as anxiety and motivation when students use platforms, and design learning tools with enhanced emotional support functions based on these findings. These four research directions complement each other, forming a comprehensive research framework to evaluate the educational value of online learning platforms.

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