



# Empirical Study on High School Students' Autonomous Learning of English Listening on Online Platforms

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**Abstract:** Constructivist theory holds that the learning environment is the main factor affecting students' self-directed learning. It is the responsibility and obligation of every high school English teacher to create a good situation that puts students at the center and allows them to participate in teaching independently. Starting from constructivist theory and self-directed learning theory, this article explores the effectiveness of high school students' self-directed English listening learning on online platforms through teaching experiments, stimulating their interest in learning English and cultivating their ability for self-directed learning.

**Keywords:** network environment; senior high school student; English listening; self-directed learning

After the 21st century, the rapid development of information technology in China, especially Internet technology, has brought about the reform of teaching methods. Today, students and teachers can learn independently through various platforms, without being personalized by time and location. The teaching and learning on online platforms have mobilized the enthusiasm of teachers and students, reflecting the leading role of students<sup>[1]</sup>. English teaching has always emphasized the role of teachers as role models, and students passively receive information, which affects their autonomy; In the new round of teaching reform, emphasis is placed on returning to the essence of the classroom, requiring teachers to be only organizers and coordinators of the classroom, and students to be the main body of the classroom. This also conforms to the autonomous learning of high school English on online platforms. This article explores the effectiveness of high school students' self-directed English listening learning on online platforms through constructivism and self-directed learning theory, providing direction for the reform of high school English listening teaching in the new era<sup>[2]</sup>.

## 1. Constructivist theory and self-directed learning theory

Constructivist theory emphasizes the learning environment, which is the main factor influencing students' self-directed learning. The learning environment in constructivism consists of four requirements: "context", "conversation", "collaboration", and "construction". Students collaborate to complete learning through certain contexts, fully exert their autonomy, actively participate in conversations, and ultimately achieve the construction of the meaning of the knowledge they have learned<sup>[3]</sup>. In this process, the online environment or platform is just a context, and teachers are just organizers and guides. Students actively explore, discover, and construct knowledge through a self-directed learning environment.

The theory of self-directed learning holds that learners achieve the goal of mastering knowledge through conscious choices, autonomous development of learning plans, self-regulation of learning progress, self-evaluation of learning outcomes<sup>[4]</sup>. Self directed learning is an attitude, as well as an ability, a process

of self-learning and recognition. The theory of self-directed learning can be traced back to the 1960s, and the definition of self-directed learning has been controversial. Most scholars in China believe that self-directed learning theory should include three parts: environment, attitude, and ability. Students can master the knowledge they have learned and exercise their learning abilities through a certain learning environment, conscious choices, and self-learning abilities. Constructivism and self-directed learning theory both believe that students can effectively grasp the knowledge they have learned through self-directed learning in certain contexts, further enhancing their ability for self-directed learning<sup>[5]</sup>.

## **2. Empirical Research Design on Autonomous Learning of High School English Listening**

To confirm the implementation of self-directed learning in high school English listening on online platforms, explore the main problems of students' self-directed learning in this context, and further propose strategies to improve high school students' English listening, this study randomly selected 360 students (including 175 boys and 185 girls) from the second and third grades, and 16 English teachers from the second and third grades to participate in a questionnaire survey<sup>[6]</sup>.

In September 2024, the author completed a self-directed learning questionnaire survey of 360 students in the school in three days and a questionnaire survey of 16 English teachers in one day. The teacher questionnaire mainly includes 8 multiple-choice questions and 1 question and answer question, mainly asking students about their use of online self-directed learning to complete listening, as well as other issues related to monitoring and evaluation of online self-directed learning<sup>[7]</sup>. The last question is the teacher's own opinion on students' online self-directed learning listening. The student questionnaire consists of two sheets, one is a self-directed learning questionnaire and the other is a listening strategy questionnaire.

The self-directed learning questionnaire consists of 30 multiple-choice questions and 1 question and answer question, mainly including 5 questions each on learning motivation, learning content and materials, learning time and process, learning methods, learning outcomes, and learning environment. The last question is about students' opinions on their own listening skills for online self-learning. The listening strategy questionnaire consists of 15 multiple-choice questions, mainly covering three aspects: metacognitive strategies, affective strategies, and cognitive strategies. The questionnaire is designed using a scale and is recorded as completely consistent to completely consistent.

Simultaneously conducting listening learning strategy experiments in the class I teach, and conducting a learning strategy questionnaire survey. Develop and implement listening learning strategies for online listening training, conduct an English listening test at the end of the semester to assess the effectiveness of utilizing listening learning strategies, and understand the impact of self-directed learning on listening learning. A test will be conducted in early September 2024 before implementation, and another test will be conducted at the end of the semester, with similar difficulty levels for the test questions<sup>[8]</sup>.

## **3. Empirical Analysis of Autonomous Learning in High School English Listening**

### **3.1 The online environment is conducive to high school students' autonomous learning of English listening**

The effective response rate of teacher questionnaires is 100%, and the effective response rate of student questionnaires is 98%. Both teachers and students are satisfied with the English listening self-learning online platform, indicating that the online environment is conducive to high school students' independent English listening learning. Teacher questionnaire data shows that online teaching platforms help enhance students' awareness of self-directed learning, cultivate their ability to learn independently, and develop good habits of self-directed English



learning. The online teaching platform integrates various sensory materials, with strong interest, which helps to improve students' learning enthusiasm, enrich listening content, expand knowledge, increase information content, and help students develop and master learning progress according to their own situation<sup>[9]</sup>.

The student questionnaire data also shows that self-directed English listening learning in the online environment makes the learning process more flexible and not limited by time and space. Students can choose learning content according to their own pace and needs, and engage in personalized learning. Meanwhile, the abundant resources and interactive features on online platforms also provide students with more learning opportunities and motivation. For example, students can improve their English listening skills and enhance their language perception ability by watching English videos, listening to English songs, and participating in online discussions<sup>[10]</sup>. In addition, the online platform also provides real-time feedback and evaluation functions, allowing students to timely understand their learning situation, adjust learning strategies, and improve learning efficiency.

### **3.2 Listening learning strategies are the main factors affecting high school students' autonomous English listening learning**

The data collected from teacher questionnaires shows that different listening learning strategies have significant differences in evaluating students' self-directed learning abilities. Among the 16 teachers, 59% believe that listening learning strategies have a significant impact on students' listening scores, 32% believe that listening learning strategies affect students' listening scores, and 9% believe that listening learning strategies are not related to students' listening scores. The data collected from student questionnaires shows that there are significant differences in the affirmation of students' self-learning abilities by different listening learning strategies. 80% of students believe that their listening learning strategies are poor, resulting in a decline in English listening scores; 20% of students

believe that their listening learning strategies are acceptable and their English listening scores are relatively ideal.

Further analysis reveals that students who believe that listening learning strategies have a positive impact on self-directed learning are often able to more effectively utilize resources on online platforms, such as actively seeking suitable listening materials, actively participating in online discussions, and using tools on the platform for self-assessment. These students demonstrate higher autonomy, flexibility, and effectiveness in listening learning strategies, resulting in better grades in English listening self-directed learning<sup>[11]</sup>.

On the contrary, students who believe that listening learning strategies have little or no impact on self-directed learning are often more passive in using online platforms, lacking clear learning goals and plans, and unable to effectively utilize the resources on the platform. These students exhibit low levels of autonomy, flexibility, and effectiveness in their listening learning strategies, resulting in poor self-directed English listening learning outcomes.

Therefore, for high school students' autonomous learning of English listening, the formulation and implementation of listening learning strategies are crucial. Teachers should guide students to master effective listening learning strategies, help them better utilize resources on online platforms, and improve the effectiveness of self-directed learning. At the same time, students should actively reflect on their listening learning strategies, constantly adjust and improve them to meet the learning needs in different contexts<sup>[12]</sup>.

### **3.3 Listening learning strategies can improve the effectiveness of high school students' English listening learning**

The listening strategy questionnaire shows that listening learning strategies can improve the effectiveness of high school students' English listening learning. The seven sub items in metacognitive strategies have a significant effect on high school

students' English listening. These sub items include developing a listening learning plan, selecting appropriate listening materials for oneself to practice, reading listening requirements before listening to understand listening tasks, selecting attention, using different listening skills according to different listening purposes, self-monitoring during the listening process, and checking one's progress in listening, etc; There are also five sub items in cognitive strategies that have a significant effect on high school students' English listening, including persisting in listening to difficult sentences and words, using various media to assist listening learning, inferring listening situations using context, tone, and intonation, using abbreviations to shorthand key information in listening materials, and repeating previously heard materials as needed. These strategies have all exercised students' ability to learn English listening independently, and have had the effect of changing students' listening outcomes<sup>[13]</sup>.

Specifically, metacognitive strategies enable students to develop clear learning plans and select appropriate learning materials before listening, thus enabling targeted listening training. In the process of listening, students can effectively improve the accuracy and efficiency of listening comprehension by reading listening requirements and selecting attention, applying different listening skills according to different listening purposes. At the same time, strategies such as self-monitoring and checking progress also help students identify problems in a timely manner, adjust learning strategies, and ensure continuous progress in learning.

In terms of cognitive strategies, students cultivate a tenacious learning quality by persistently listening to complete paragraphs of materials and not easily giving up even when encountering difficult sentences or words<sup>[14]</sup>. Using various media to assist listening learning, such as watching English videos, listening to English broadcasts, etc., not only enriches the learning forms, but also broadens the learning channels. By inferring listening situations through contextual tone and intonation, and using abbreviations to transcribe

key information, strategies can help students better understand listening materials, improve listening speed and accuracy. Repeating previously heard materials as needed further consolidates learning outcomes and improves the persistence of listening memory.

In summary, the implementation of listening learning strategies has significantly improved the effectiveness of high school students' English listening learning, enhanced their self-learning ability and listening level. Therefore, in high school English listening teaching, teachers should attach importance to the cultivation and training of listening learning strategies, guide students to master effective learning strategies, and adapt to the requirements of the information age for English learning.

#### 4. Conclusion

This study empirically explores the effectiveness of high school students' self-directed English listening learning on online platforms, confirming that the online environment is conducive to high school students' self-directed English listening learning. Listening learning strategies are the main factor affecting high school students' self-directed English listening learning, and listening learning strategies can improve the effectiveness of high school students' English listening learning. During the research process, we found that online platforms provide students with abundant learning resources and interactive opportunities, enabling them to engage in personalized learning according to their own pace and needs. Meanwhile, effective listening learning strategies can help students better utilize the resources of online platforms and improve the effectiveness of self-directed learning<sup>[15]</sup>.

The results of this study have certain guiding significance for the reform of high school English listening teaching. In future teaching, teachers should actively utilize the advantages of online platforms, create a good learning environment, guide students to master effective listening learning strategies, and cultivate their self-learning ability. At the same time, students should actively adapt to learning methods



on online platforms, actively explore knowledge, and improve their listening skills and overall quality. We believe that with the joint efforts of teachers and students, high school English listening teaching will definitely achieve more significant results.

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