

Research on Cooperative Learning in College English Listening Course Empowered by Digital Intelligence

Yun Yue

Department of College English, Zhejiang Yuexiu University, Shaoxing, 312000, China

Abstract: With the rapid development of information technology and the continuous integration of the global economy, the digital era has arrived, which has had a profound impact on educational models. The introduction of the digitally empowered cooperative learning model in college English listening course not only enriches teaching methods but also enhances students' independent learning abilities and teamwork skills. This research paper delves into the integration of digital intelligence in the enhancement of cooperative learning within college English listening course. The study aims to explore the impact of digital tools and technologies on the efficiency and effectiveness of English listening instruction, focusing on the collaborative learning process among students. The research underscores the trans-formative potential of digital intelligence in empowering cooperative learning in college English listening course. By leveraging the strengths of technology, educators can create more interactive, adaptive, and student-centered learning experiences that enhance language proficiency and prepare students for the demands of the digital age.

Keywords: Cooperative Learning; Digital Intelligence; English Listening.

1. Introduction

English listening, as an indispensable part of language learning, directly reflects the depth and breadth of students' communicative and application abilities in real-life language environments. It requires students not only to accurately capture auditory information but also to quickly understand, analyze, and respond to complex contexts. However, traditional English listening teaching models are often limited to teacher-led, one-way lectures, where students are often in a passive state of reception, lacking sufficient interactive opportunities and personalized learning experiences. This makes it difficult to fully stimulate their learning potential and interest, and even more challenging to meet the urgent needs of the digital age for efficient and flexible learning methods.

The advent of the digital age has brought unprecedented opportunities for the transformation of English listening teaching. In this era of information explosion and rapidly evolving technology, students yearn for more interactive, personalized, and efficient learning methods. The traditional one-way lecture model clearly cannot meet this demand, as it overlooks the agency and diversity of students as the main body of learning, restricting the development of their innovative thinking and autonomous learning abilities.

In contrast, the cooperative learning model, with its unique advantages, has become an important direction for the reform of English listening teaching. Cooperative learning emphasizes interaction and cooperation among students, providing them with rich language practice opportunities and interactive communication platforms through group discussions, role-playing, project cooperation, and other forms. This model not only promotes mutual learning and collective progress among students but also stimulates their interest and enthusiasm for learning, enabling them to improve their English listening skills in a relaxed and enjoyable atmosphere.

Furthermore, the cooperative learning model also focuses on meeting individualized learning needs. In group activities, teachers can design differentiated learning tasks and activities

based on the different levels and interests of students, allowing each student to learn effectively at their own pace and difficulty level. This personalized learning approach helps to stimulate students' motivation and improve their learning outcomes and satisfaction.

2. The Current Situation in College English Listening Course

2.1. Student Foundation and Interest

Weak student foundation: Many students, due to the influence of traditional exam-oriented education during middle school, have had few opportunities to receive systematic English listening training before entering college, which leads to a relatively weak foundation in English listening. This weak foundation directly affects their listening learning effectiveness in college.

Low interest in learning: Due to the inability to understand, many students generally have a low interest in English listening classes, and even regard listening classes as a break, lacking the motivation to learn actively.

2.2. Curriculum Design and Class Hours

Irrational curriculum design: In some colleges and universities, English listening courses have not received sufficient attention, and their credits and class hours are often compressed, or even replaced by other courses. This leads to students finding it difficult to get adequate listening training within the limited class hours.

Insufficient class hours: Although the Ministry of Education has implemented reforms in college English teaching for some time, the English listening class hours in many colleges and universities are still insufficient, with only one or two classes per week, and often two consecutive classes, which affects the learning effect.

2.3. Teaching Models and Methods

Large class teaching: Due to the expansion of college enrollment and the shortage of English teachers, many

colleges and universities adopt large class teaching models for English listening teaching. Under this model, teachers find it difficult to take into account the needs of each student, and activities are difficult to carry out, affecting the quality of teaching.

Single teaching method: Traditional English listening teaching often adopts the method of teachers playing recordings, students listening to the recordings collectively, and teachers and students collectively answering the questions, lacking the teaching and explanation of students' listening micro-skills. This single teaching method is difficult to truly improve students' listening ability.

2.4. Teaching Assessment and Feedback

Incomplete assessment system: The current assessment system for college English listening teaching often focuses on the assessment of students' listening results, while neglecting the assessment of students' listening abilities themselves. This assessment method cannot fully reflect the students' listening level.

Lack of feedback mechanism: In the process of listening teaching, teachers often lack timely feedback and guidance on students' listening performance, making it difficult for students to understand their shortcomings and make improvements in time.

2.5. Learning Atmosphere and Self-learning Ability

Lack of English learning atmosphere: Non-English major students often lack the atmosphere and opportunities for English learning, such as morning reading, English corners, drama performances, and other activities are often regarded as the patent of English major students, which limits their ways to improve listening and speaking skills.

Insufficient students' self-learning ability: Many students are accustomed to relying on the guidance and arrangements of teachers, lacking the awareness and ability of self-learning. This leads to them being unable to effectively carry out listening training and improvement during their extracurricular time.

In response to the above problems, college English listening teaching needs to carry out corresponding reforms and innovations. Specific measures include: strengthening the training of students' listening foundation; optimizing curriculum design and class hour arrangements; adopting a variety of teaching models and methods; improving the teaching assessment system; establishing an effective feedback mechanism; creating a good English learning atmosphere; and cultivating students' self-learning ability. Through the implementation of these measures, the current situation of college English listening teaching can be gradually improved, and students' English listening ability can be enhanced.

3. Cooperative Learning and Its Benefits in English Listening Course

3.1. Cooperative Learning

Cooperative learning originated in the United States in the 1970s, which is a teaching activity that uses heterogeneous learning groups as the basic form, promotes student learning by systematically utilizing the interaction between teaching dynamic factors, and takes team performance as the

evaluation standard. Constructivism believes that the learning process is not a passive acceptance of knowledge by learners, but an active process of constructing knowledge. Learners continuously build and update their cognitive structure through interaction with the environment and others. Cooperative learning provides an ideal practical environment for constructivism. In cooperative learning, the interaction and cooperation between students and between teachers and students provide students with rich cognitive resources and information sources. Students continuously build and improve their knowledge system through discussion, communication, and sharing. Its core concept is to maximize learning effects through cooperation and communication among students. In the digital era, the cooperative learning model is combined with information technology to form a more efficient and flexible teaching model.

Although the application of other theories in cooperative learning is limited, they provide a variety of perspectives for the research on technology-empowered foreign language cooperative learning, and future research can continue to explore and verify the guiding significance of these theories in this field. It should be noted that a lot of the research on cooperative learning does not mention any theory. Among the studies that mention theoretical perspectives or frameworks, some fail to properly integrate the theory for an in-depth interpretation of the research findings. Future research should avoid such issues and continuously attempt to expand the application of other theories in technology. Overall, the current research topics on technology-empowered foreign language cooperative learning are broad, but they tend to focus on collaborative foreign language writing, with less in-depth exploration of topics such as reading, speaking, vocabulary, etc., and research involving foreign language listening skills is particularly scarce. In addition, existing research only focuses on the cognitive and affective impact of technology-empowered foreign language learning on learners, without systematically examining the potential moderating effects of learners' cognitive and affective factors on the effectiveness of technology-empowerment.

3.2. Benefits of Digitally Empowered Cooperative Learning in English Listening Course

3.2.1. Integration of Digital Learning Resources

In the digital era, digital learning resources are increasingly abundant, such as online courses, audio materials, video materials, etc. Teachers can integrate these resources into cooperative learning to provide students with a variety of learning materials. For example, in listening teaching, teachers can select audio materials with different themes, and match them with corresponding videos or pictures to enhance students' visual and auditory dual stimulation and improve listening comprehension.

3.2.2. Construction of Cooperative Learning Model

Cooperative learning is the core of the cooperative learning model. In the digital era, teachers can use online platforms or intelligent teaching systems to divide students into different groups and set clear learning tasks and goals. Group members can cooperate through online discussion, resource sharing, mutual evaluation, and other ways to solve problems in listening learning. This model not only promotes communication and cooperation among students but also cultivates students' team spirit and communication skills.

3.2.3. Customization of Personalized Learning Paths

Digital technology makes personalized learning possible. In cooperative learning, teachers can use intelligent teaching systems to collect students' learning data, analyze students' listening levels and learning habits, and customize personalized learning paths for students. For example, for students with lower listening levels, the system can provide more basic exercises and tutorial resources; for students with higher listening levels, it can provide more challenging listening materials and tasks. This personalized learning path helps to stimulate students' learning interest and motivation and improve learning effects.

3.2.4. Real-time Feedback and Dynamic Adjustment

Digital technology also makes real-time feedback and dynamic adjustment possible. In the process of cooperative learning, teachers can monitor students' learning progress and effects in real time through intelligent teaching systems, and provide timely feedback and guidance to students. At the same time, the system can also automatically adjust the learning content and difficulty according to students' learning situations to ensure that students can maintain the best learning state. This real-time feedback and dynamic adjustment mechanism helps teachers to better grasp students' learning situations and improve the pertinence and effectiveness of teaching.

4. The Application of Digitally - Empowered Cooperative Learning in College English Listening Course

4.1. Case Study 1: Online Listening Group Challenge

In order to improve students' listening level and team cooperation ability, organize an online listening group challenge.

Grouping and task setting: Teachers use intelligent teaching systems to randomly divide students into multiple groups, with 4-6 people in each group. Each group is assigned listening materials of different difficulties, including news broadcasts, speeches, movie clips, etc., and is required to complete listening tasks within a limited time.

Cooperative learning: Group members share listening materials through online platforms, divide the work to complete note organization, key word extraction, information induction and other tasks. At the same time, the group conducts real-time discussions to solve difficult problems in listening together.

Results presentation and feedback: Each group makes the listening results into PPT or videos for online display. Teachers and other groups provide comments and scores, and offer feedback. The intelligent teaching system also automatically generates an analysis report according to the group's performance, pointing out strengths and weaknesses.

Analysis: This activity greatly stimulated students' interest in learning and team cooperation ability. Students learned from each other in the cooperation process, complementing each other's strengths and weaknesses, and not only improved their listening level but also enhanced their communication ability and problem-solving ability.

4.2. Case study 2: Personalized Listening Learning Plan

Intelligent assessment: Students first take a listening level

test through the intelligent teaching system, and the system customizes a personalized learning plan for them according to their test results and learning history data.

Diversified learning resources: The system provides students with a variety of listening materials, including audio and video resources of different difficulties and themes. Students can choose learning materials according to their interests and needs.

Cooperative learning and mutual assistance: In the process of completing the personalized learning plan, students can establish study groups with classmates through online platforms. Group members can share learning experiences, answer doubts, and encourage and support each other.

Real-time feedback and adjustment: The intelligent teaching system monitors students' learning progress and effects in real time, automatically adjusts the learning plan and resource recommendations according to students' learning situations. At the same time, the system will also regularly send learning reports and feedback to students, helping them to find and correct problems in learning in time.

Analysis: The personalized listening learning plan allows each student to study in a targeted manner according to their actual situation. The cooperative learning model further promotes communication and cooperation among students, improving learning efficiency and effect. Many students have made significant progress in listening in a short period of time.

4.3. Implications of the Two Case Studies

4.3.1. Improve Students' Interest and Motivation in Learning

The cooperative learning model stimulates students' interest and motivation in learning through diversified learning resources and personalized learning paths. Students can feel the joy of learning in interaction with their peers, and thus more actively engage in listening learning.

4.3.2. Enhance Students' Independent Learning Ability and Team Spirit

In cooperative learning, students need to complete learning tasks independently, participate in group discussions, and share resources and other activities, which helps to cultivate students' independent learning ability and team cooperation ability. At the same time, students also need to learn to communicate, negotiate and solve problems with others, and these skills are very important in future work and life.

4.3.3. Improve the Effect and Quality of Listening Teaching

The cooperative learning model improves the effect and quality of listening teaching through diversified teaching methods and real-time feedback mechanisms. Students can better understand and master listening materials in interaction with their peers, thereby improving listening comprehension ability. At the same time, teachers can also adjust teaching strategies and methods in time according to students' learning situations to ensure the achievement of teaching goals.

4.3.4. Evaluation of Cooperative Learning in English Listening Course

In the digital age, the assessment system for cooperative learning in listening instruction should reflect comprehensiveness, objectivity, scientificity, and accuracy to meet the needs of personalized learning and efficient assessment. The following is a detailed discussion on the assessment of cooperative learning in listening instruction:

1) Principles of Assessment System Construction

Diversity: Assessment should not be limited to the final listening test scores but should include various aspects such as students' performance, participation, and cooperation during the learning process.

Process Orientation: Emphasize the performance of students during the learning process, and assess their progress and changes through continuous observation and recording.

Personalization: Considering the individual differences of each student, the assessment should reflect their unique learning styles and trajectories of progress.

Integration of Technology: Utilize digital tools and technological means to improve the efficiency and accuracy of assessment.

2) Assessment Content and Methods

Group Self-Assessment: Encourage student groups to conduct self-assessment, reflect on the strengths and weaknesses of the learning process, and propose suggestions for improvement.

Peer Assessment: Through mutual evaluation among group members, enhance mutual understanding, promote cooperation and communication, and help teachers gain a more comprehensive understanding of students' learning situations.

Class Presentation and Feedback: Conduct class presentations in groups to showcase learning outcomes and cooperative processes, with feedback and evaluation from teachers and other groups. This method can exercise students' expressive abilities and team spirit.

Assessment with Digital Tools: Use digital tools such as online learning platforms and intelligent speech recognition technology to automatically record and analyze students' listening practice data, such as accuracy and response time, providing teachers with objective and accurate assessment bases.

End-of-Term Listening Level Test: As the final examination of students' learning outcomes, the end-of-term listening level test should comprehensively cover the content learned, assessing students' listening comprehension, information extraction, and comprehensive application abilities.

Grade Analysis and Feedback: Use digital tools to statistically analyze the test results and generate detailed grade reports, providing targeted teaching suggestions for teachers and also allowing students to clearly understand their learning status.

3) Advantages of the Assessment System

Comprehensive Reflection of Student Learning: Diverse assessment content and methods can fully reflect students' performance, progress, and changes during the learning process.

Promoting Autonomous and Cooperative Learning: Process assessment encourages students to actively participate in the learning process, improving their ability to learn autonomously; meanwhile, peer assessment and group presentations also promote students' cooperative learning and communication skills.

Improving Assessment Efficiency and Accuracy: The application of digital tools makes the assessment process more efficient, accurate, and objective, reducing the interference of human factors.

Providing Basis for Personalized Teaching: By continuously tracking and analyzing students' learning data, teachers can more accurately understand the learning characteristics and needs of each student, providing a basis

for personalized teaching.

In summary, the assessment system for cooperative learning in listening instruction in the digital age should embody the characteristics of diversity, process orientation, personalization, and technological integration to comprehensively, objectively, scientifically, and accurately assess students' learning outcomes and progress.

5. Conclusion

The research on cooperative learning in college English listening course empowered by digital intelligence has important significance and value. It not only enriches teaching methods, improves students' interest and motivation in learning, cultivates students' independent learning ability and team cooperation ability, but also improves the effect and quality of listening teaching. Therefore, we should actively promote and apply this teaching model to inject new vitality and momentum into college English listening teaching. The enhancement of English listening teaching effectiveness requires breaking free from the constraints of traditional models and actively exploring and practicing teaching models that are more in line with the characteristics of the digital age. The cooperative learning model, with its unique advantages, provides valuable references and insights for the reform of English listening teaching. In the future, we should continue to deepen the research and application of the cooperative learning model, contributing to the cultivation of outstanding talents with an international perspective and the ability for cross-cultural communication.

Acknowledgments

This work was supported by a grant from Zhejiang Province Provincial-Level Blended Online and Offline Course ---An Integrated English Course 2.

References

- [1] Dillenbourg, P. What do you mean by collaborative learning? [M]// DILLENBOURG P. Collaborative Learning Cognitive & Computational Approaches. Oxford: Elsevier,1999:1-19.
- [2] Fischer, I. D. & J. Yang. Flipping the flipped class: Using online collaboration to enhance EFL students' oral learning skills[J]. International Journal of Educational Technology in Higher Education,2022(1).
- [3] Gao, Q. & L. Liu. A study on college English teachers' belief in listening teaching and its relationship with teaching practice[J]. Foreign Language World, 2013(02).
- [4] Huang, H. Effects of smartphone-based collaborative vlog projects on EFL learners' speaking performance and learning engagement [J]. Australasian Journal of Educational Technology, 2021(6).
- [5] Johnson, D. W. & R. T. Johnson. Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning (2nd edn.) [M]. New Jersey: Prentice-Hal, Inc.,1987.
- [6] Su, F. & D. Zou. Technology-enhanced collaborative language learning: theoretical foundations, technologies, and implications [J]. Computer Assisted Language Learning, 2022 (8).
- [7] Wang, T. Cooperative Learning Principles and Strategies[M]. Beijing: Xueyuan Publishing House ,2001:32.
- [8] Xu, J. & J. Yang. A scoping review of studies into technology-empowered collaborative foreign language learning[J]. Technology Enhanced Foreign Language Education, 2023(2).