Teaching Mode Reform of English Listening and Speaking Course under the Background of Smart Education

Baiying Chen

Humanities and Foreign Languages School, Zhejiang Shuren University, Hangzhou, Zhejiang, 310015, China

Abstract: English listening and speaking is an important part of college English teaching system. Influenced by various factors, English listening and speaking course still has some problems, such as limited teaching content, mechanical teaching methods and single teaching evaluation. Under the background of new liberal arts, English listening and speaking intelligent teaching is both instrumental and humanistic. The construction of intelligent teaching mode should follow the principles of clear target orientation and exploring learning motivation, emphasizing cultural input and creating communicative environment, using information technology and optimizing teaching and research ecology. We should create an open teaching atmosphere, construct a self-learning mode, expand intelligent teaching scope, develop intelligent teaching activities, launch intelligent teaching evaluation, and implement digital reform from teaching resources, methods, design and evaluation, so as to form an innovative mode of liberal arts empowered by modern information technology.

1. Introduction

Since the middle and late 1990s, China began to vigorously promote education informationization, and the education model has undergone tremendous changes accordingly. With time, it gradually shifted from the stage of development and construction of software, hardware facilities and digital teaching resources to the stage of smart education marked by talent cultivation and student growth care.

The smart education in the information era is a new education system based on the Internet, cloud computing, communications and other new generation of information technology [1]. It is theoretically supported by smart teaching, smart management and smart learning methods. The Four New Disciplines Construction in China is driven by smart education, which has an impact on the talent training paradigm from the aspects of educational thought, development concept, quality standards and technical quality. The new and scientific teaching mode is the core element to realize smart education. Under the guidance of the new liberal arts concept, teaching should actively promote the integration of modern information technology, such as artificial intelligence, big data, and liberal arts majors, and carry out digital reform from teaching resources, methods, design and evaluation, so as to form a smart education mode of liberal arts empowered by modern information technology.

2. The Shortcomings of the Course of English Listening and Speaking

English listening and speaking is an important part of the English teaching system in Colleges and universities. In recent years, with the promotion of teaching reform, the overall quality of college English listening and speaking teaching has been greatly improved. However, under the influence of various factors, there are still some common problems in college English listening and speaking courses at this stage, which are mainly manifested in:

2.1. Limitation of Teaching Content

At present, the teaching content of listening and speaking is mostly confined to textbooks and grading materials. Audio teaching materials are often completed in the studio, the Speech-rate and pronunciation are too formal and standardized, and lack of context of oral practice and timely feedback guidance, which could easily lead to the disconnection between teaching and practice.

2.2. Mechanization of Teaching Methods

In the process of listening and speaking teaching, the teacher-centered teaching methods such as following the procedure of "record playing--teacher explanation--replay—restatement" are mostly adopted. However, the cultivation of English listening and speaking skills is a dynamic and long-term project. It is difficult to achieve the goal of language knowledge learning and language skills development only by classroom practice and exam-oriented training.

2.3. Simplification of Teaching Evaluation

Listening and speaking courses often use standardized test papers to evaluate students' listening and speaking ability, but the scores obtained by students through reviewing textbooks are often difficult to reflect their real listening and speaking level. With the renewal of educational ideas and the enhancement of students' subjective consciousness, the traditional evaluation system of listening and speaking teaching can no longer adapt to the continuous development of higher education.

3. The Construction Principle of Intelligent Teaching Mode of English Listening and Speaking

English listening and speaking course under the background of new liberal arts has both instrumentality and humanism, that is, the instrumentality of students' listening and speaking ability and their communication and exchange ability in the vocational field, as well as the humanism of telling Chinese stories well in foreign languages on the basis of English application ability. Therefore, it is necessary to establish a practical English listening and speaking teaching mode with distinctive applied liberal arts characteristics based on the establishment of listening and speaking practice teaching resource database and the development of various language application scenarios, so as to meet the educational needs of digital aborigines in the information age.

3.1. Define the Target Orientation and Explore the Learning Motivation

The goal of English listening and speaking course is communication, and there is a profound internal relationship between listening and speaking skills in the process of language learning. Only by consolidating the students' English pronunciation foundation can they understand the meaning of the text, and by choosing the right words, sentence patterns and discourse, can achieve smooth expression. During this period, stimulating students' interest in learning, making them actively use intelligent equipments for fragmented learning, and developing good learning habits are the

prerequisites for improving students' English listening and speaking ability.

3.2. Pay Attention to Cultural Input and Create a Communicative Environment

For English learners, cultural differences are learning difficulties. We should guide students to learn diverse cultures with a critical eye, take their strengths for our own development; It is also necessary to cultivate students' self-confidence in national culture and enable them to tell Chinese stories, disseminate Chinese voices and explain Chinese characteristics to the world appropriately. Teachers should combine English listening and speaking teaching practice, and in addition to textbooks, use intelligent equipments to excavate the relevant corpus of cultural knowledge, and create rich and diverse teaching scenarios for students through multimodal teaching mode, so as to improve students' language application ability.

3.3. Use Information Technology to Optimize Teaching and Research Ecology

The extensive application of mobile communication technology makes English listening and speaking intelligent teaching system more advanced. Students can do pronunciation exercises, listening and speaking tests to know their own learning situation. Teachers use data to record and master students' learning process, optimize teaching programs, and carry out online and offline mixed teaching. While using intelligent teaching methods to motivate students, teachers may accumulate teaching experience, improve teaching ability, carry out teaching research, and thus form a virtuous circle of teaching promoting scientific research and scientific research feeding teaching.

4. The Content of the Intelligent Teaching Mode of English Listening and Speaking

The intelligent teaching mode of English listening and speaking course aims to break the shackles of the lack of teaching resources, the unicity of teaching methods and the lag of teaching contents in the traditional listening and speaking teaching, and to design teaching steps by using the intelligent environment. The new mode focuses on cultivating students' autonomous learning, logical thinking and practical application ability, which reflects the development trend and application trend of English or Business English major education.

4.1. Creating an Open Teaching Atmosphere

Intelligent teaching advocates a highly open and comprehensive new teaching mode, and teachers use information technology to change the learning environment of students. Intelligent teaching focuses on the construction of three content libraries to precipitate wisdom, including learning resource library, open curriculum library and management information library [2]. Its teaching content should be three-dimensional, multi-dimensional and targeted, including textbooks and examination-oriented content, as well as curriculum content closely related to contemporary economic and social development and future workplace. Listening activities are an excellent way to enable students to select salient words, ideas, and concepts and make use of their background knowledge and rhetorical knowledge as well as their knowledge of case endings and word order to comprehend what they are hearing. Teachers can also guide students to respond to listening passages not only by answering questions but also by doing, choosing, transferring, condensing, extending, or duplicating. Further, speaking can include simple question-and-answer, sentence builders, and role plays as well as more developed narration or description, solving a problem, acting out a script, or taped readings [3]. Through the comprehensive use of multimedia technology, that is, under the combined effect of pictures, video, audio and so on, teachers can realize the reconstruction of English

situation while students enhance their language sense, perceive the speed and pronunciation of English scene and spoken language in real dialogue situation. Using information technology to create a diverse teaching environment is the premise of improving students' comprehensive language application ability and cross-cultural communicative competence.

4.2. Constructing the Mode of Autonomous Learning

Based on the advantages of real-time interaction in traditional classroom, the basic requirements of online education are to concentrate attention, enhance interest in learning and autonomous learning ability, and increase teacher-student interaction [4]. The intelligent teaching mode of English listening and speaking course advocates that students carry out exploratory learning activities of self-defined themes with the assistance of information technology, so as to realize the comprehensive cultivation of their professional innovation consciousness and autonomous learning ability. Material choice is an important factor in language learning and including technological tools in these material set has positive effects on learners' success. And Technological tools in the learning atmosphere help students in acquiring the required knowledge in an easier way [5]. The new teaching mode promotes the formation of students' autonomous learning habits by investigating and utilizing the existing mature English network teaching platforms, English learning apps and other online resources. After extensive teaching guidance in the classroom, students use intelligent technology (websites, players or application software) to carry out listening and speaking exercises independently, and gradually increase the difficulty according to their own abilities and perform targeted learning. Intelligent mode gets rid of the shortcomings of traditional listening and speaking teaching, such as narrow choice and few adjustment factors. To achieve the best effect, students can test themselves online, and adjust the original learning progress and mode according to the results. Students can also use online corpus to simulate scene dialogues with teachers. Consequently, students' interest in learning is more easily stimulated, their dominant position and ability to construct knowledge independently are improving, and their learning motivation is also enhanced.

4.3. Expanding the Scope of Intelligent Teaching

The scope of teaching has expanded from textbooks and grading exercises to a broad network of intelligent teaching, which can lay a solid resource foundation for students' listening and speaking learning. Because the traditional teaching of listening and speaking pays attention to the bottom-up acquisition of language knowledge, there are limitations in both learning content and media. The materials in the intelligent environment are often large and global, involving all aspects of knowledge. Teachers actively create a smart environment and students actively use the smart model. Then it could be possible to achieve an equivalent learning environment in English speaking countries to a large extent. Expanding the scope of intelligent teaching is helpful for students to master cultural terms, broaden their knowledge, and then promote the realization of intelligent teaching goal in the network environment. However, the traditional features and environment of e-Learning have been unsuccessful to gauge the innovative features of recently emerged learning environments and resultantly, have ascertained the need of adoption of new patterns of smart learning so that educational needs of organizations and learning needs of technology-oriented learners may be fulfilled [6]. To this end, the school should co-construct the high-quality English listening and speaking teaching laboratory within the region as soon as possible, and introduce to students the electronic reading listening and speaking training, online tutorials, online listening and speaking test questions, listening and hearing difficulties counseling and other columns based on the campus network, in order to meet the diverse needs of students in English learning. With the complementary advantages of various listening and speaking teaching resources, the capacity of curriculum knowledge and culture has been

expanded, the limitations of teaching content broken, and various teaching scenarios guaranteed.

4.4 Developing Intelligent Teaching Activities

Teaching activity is the core of the whole classroom teaching mode, and also the key factor to achieve the established teaching objectives. In the meantime, English listening and speaking flipped classroom teaching mode can effectively transform the input material from receptive knowledge to productive knowledge, so as to achieve the ultimate goal of the combination of teaching methods and educational depth[7]. The intelligent teaching mode of English listening and speaking course is based on intelligent classroom and teaching platform, which can be divided into the following three stages.

The pre-school (preview) stage. Teachers use the platform to collect students' learning behavior data, understand students' learning characteristics and needs, complete the first learning situation analysis, and then push personalized multimedia preview materials and self-test content. After the students independently complete the listening and speaking tasks on the intelligent mobile terminal, they discuss with their peers and teachers on the platform, and put forward questions, difficulties or opinions, and teachers collect the data of students' autonomous learning on the intelligent mobile terminal. According to the content of communication feedback, the teacher analyses the students' learning situation again, so as to determine the teaching objectives of the course.

In-class (co-learning) stage. Teachers leverage hardware benefit of smart classrooms and high-quality teaching platform to carry out teacher-student interaction and student-student interaction, so as to promote students out of the comfort zone of passive listening and speaking. Based on the analysis of pre-class learning situation, teachers select students' interest points to create scenarios and introduce new lessons; According to the situation of students' preview, inquiry tasks are issued on the platform to guide students' cooperative learning. Teachers instruct online and ask the team to show the results; Then, the teachers issue tests to check the students' mastery, and the students receive timely feedback after submitting. Combining with collaborative learning, results display and classroom tests, Teachers analyze the data, and carry out targeted listening and speaking exercises to deepen students' curriculum knowledge.

After-school (extension) stage. According to students' classroom response and actual situation, teachers push after-class listening and speaking exercises through the platform. At the same time, they contact students for personalized counseling, or organize capable students to set up collaborative groups to help students with learning difficulties to carry out listening and speaking training based on the homework situation. Teachers should also encourage each student to publish learning experience or summarize reflection on the platform, and adjust the teaching plan timely and effectively through teacher-student interaction and student-student interaction. They use a variety of data analysis methods based on the big data generated by intelligent teaching tools, combined with feedback from listening and speaking classroom teaching, to generate valuable evaluation and test results.

4.5. Implementing the Evaluation of Intelligent Teaching

The evaluation system under the background of Internet education is a comprehensive evaluation standard system with the core of promoting students' all-round personality development[8]. Teaching evaluation is the evaluation of teaching and learning effect, which needs to construct a multi-dynamic evaluation system, including evaluation subject (student self-evaluation, teacher evaluation and peer evaluation), evaluation method (formative and summative evaluation) and evaluation content (knowledge mastery ability, autonomous learning ability, cooperation ability, inquiry ability and problem analysis and solution ability). Many scholars have made efforts on the intelligent evaluation. For example, hassani designs a computational model to evaluate learner's proficiency level, and an automatic adaptation mechanism which adjusts to the learner's learning curve [9]. Liu proposes a

decision support system for evaluating the function of the 5G network and AI in situational teaching research in higher education [10]. In the intelligent teaching mode of English listening and speaking, students' learning activities include in-class and after-class, as well as online and offline. Teachers can make scientific curriculum evaluation for students by combining students' online learning behavior data with which Web3.0 technology provides, and offline evaluation, that is, students' enthusiasm to participate in various communicative activities in the physical classroom, their ability to cooperate and explore in cooperation, and their ability to master knowledge reflected in the completion of curriculum interaction. The intelligent teaching mode of listening and speaking transforms the traditional standardized and summative assessment into a combination of diagnostic, formative and summative assessment, focusing on the guiding assessment of learning strategies, learning process and learning results.

5. Conclusion

Intelligent teaching of English listening and speaking course is the mode to realize "intelligence plus education" of English listening and speaking course with the help of real corpus input and various intelligent teaching tools under the background of informationization. This mode conforms to the characteristics of foreign language teaching and integrates the process of teaching and learning with modern information technology in an all-round and deep way. By creating an intelligent and digital learning environment, it connects teaching and learning in and out of class. On the one hand, it lays stress on the individualization and diversification of students' learning, and thus improves students' English listening and speaking level and language application ability. On the other hand, it pays attention to the ecology of teaching and promotes the coordinated development of teachers and students.

Acknowledgements

References

[1] Yang, H.Y. & Lei, T.N. (2016) Intelligent Education: Educational Application of Internet of Things. Beijing: Chinese Publishing House, 23.

[2] Yang, X.M. & Yu, S.Q. (2015) Architecture and key supporting technologies of smart education. China Audio-Visual Education 01, 77-84.

[3] Gruber-Miller J. (2005) Developing Listening and Speaking Skills: Practical Ways to Implement the Standards with the Oxford Latin Course. Classical Journal, 101, 1, 87-98.

[4] Yang, F., Zhang, H.R. & Zhang, W.X. (2017) A Preliminary Study of Blended Teaching Based on MOOC and Rain Classroom — Taking the Teaching Practice of Life English Listening and Speaking MOOC and Rain Classroom as an Example. Modern Education Technology, 27, 5, 33-39.

[5] MUTLU V. (2019) A Study on Using Student Version of Interactive Whiteboard Software in Smart Phones in Language Education. Journal of International Social Research, 12, 63, 846-852.

[6] Sultana N, Khalil A. (2017) e-Adoption of Smart Learning in Higher Education. Journal of Social Sciences & Humanities (1994-7046), 25, 2, 127-151.

[7] Gao, P. (2018) An Empirical Study of College English Flipped Classroom Teaching Model Based on Poa Theory — Taking Listening and Speaking Teaching as an Example. Audio-visual Education Research, 39, 12, 102-107.

[8] Yi, L.Y. (2020) Internet Education and Educational Reform. Wuhan: Central China Normal University, 135.

[9] Kaveh Hassani, Ali Nahvi & Ali Ahmadi. (2016) Design and implementation of an intelligent virtual environment for improving speaking and listening skills, Interactive Learning Environments, 24, 1, 252-271.

[10] Liu, X., Faisal, M. & Alharbi, A. (2022) A decision support system for assessing the role of the 5G network and AI in situational teaching research in higher education. Soft Computing 26, 20, 10741–10752.