

Research on the Path of Enhancing the Teaching Ability of University English Teachers Empowered by Artificial Intelligence

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Abstract: With the progress of educational digital transformation, college English teaching has been changing and is now moving towards "intelligent empowerment". Artificial intelligence has changed all links in the teaching-learning-assessment process of English and set high and demanding standards for the teaching abilities of English teachers. Based on the actual cases of intelligent teaching, this paper has identified four dimensions of English teachers' teaching competencies in the intelligent era, systematically analysed the practical problems teachers face in using technology, teaching integration, professional literacy and evaluation mechanisms, and put forward a system for improvement: "Strengthen the foundation with technical literacy, enhance quality through teaching integration, promote professional development, and provide support by means of an evaluation system." It can offer some practical suggestions for English teachers on how to use intelligent teaching to improve teaching quality and thus advance the digital, personalised and efficient development of college English teaching.

Keywords: Artificial intelligence, College English, English Teachers, Teaching Competencies, Improvement Paths, Intelligent Teaching Integration

Introduction

With the deep penetration and wide application of artificial intelligence in higher English education, college English teaching has officially entered a new era of intelligence, personalisation and precision. Based on the above data and scenario simulations, it has been determined that the intelligent teaching model has solved many problems in traditional English classes, such as failing to consider individual differences, a lack of practical situations, a single-factor assessment method, and low teaching efficiency; therefore, it is now being promoted to promote the high-quality development of English education. Finally, the results of technological empowerment will depend on how well the English teachers can use the new technologies. As the main implementers and leaders of English teaching, the technical application level, teaching integration ability, innovative thinking and all-round literacy of teachers will directly affect whether the educational value of intelligent technology can be fully realised.

At present, some college English teachers still lack AI technical literacy, do not integrate teaching and technology deeply, have outdated educational concepts, and lack interdisciplinary abilities; thus, the full potential of intelligent teaching has not been realised, and problems such as "technological alienation" and "over-cold teaching" have even occurred^[1]. Therefore, in order to promote the reform of college English teaching and cultivate all-round international talents, it is necessary to systematically study the core components and scientific improvement paths of English teachers' teaching competencies in the intelligent era.

1. General Features of AI-Assisted College English Teaching

The foundation of AI-driven English teaching is the integration of intelligent technology at all stages of "teaching-learning-assessment", and through technological empowerment, a profound transformation of the teaching model can be achieved. The three main characteristics of it are as follows:

First, teaching accuracy. Intelligent teaching systems can collect real-time learning data of students in all aspects of English, such as vocabulary accumulation, grammar mastery, listening, speaking, reading, writing and translation. Many indicators of a student's learning progress can be obtained via

algorithms, such as the correctness rate of answers, how long a student has studied, the types of mistakes made, and even details of spoken words. It will help English teachers develop teaching plans that meet the different learning needs of students and apply differentiated instruction and personalised learning.

Second, Practical Contextualisation. With the help of VR/AR immersive technology and intelligent oral assessment tools, many realistic language practice scenarios can be created, such as cross-border business negotiations, academic English speeches and intercultural communication dialogues; thus, students can be put in an almost real language environment to improve all-round language application skills. Contextual teaching can make up for the lack of extensive practice opportunities and single-context teaching in traditional classes, and it can also attract students' attention to learning and improve their initiative and accuracy in using language^[2].

Thirdly, the economy. AI tools can help to automate some of the teachers' work, such as automatic grading of multiple-choice questions in English, scoring oral pronunciation, marking listening practice, tracking students' learning progress, etc., and thus reduce the administrative load on teachers. Based on the above data, intelligent grading tools can reduce the time teachers need to grade homework by more than 60%, so they can focus on high-value activities such as course planning, personalised teaching, and guiding students' thinking to improve the quality of education.

This model will motivate English teachers to change from the traditional role of "knowledge transmitters" to that of "English learning designers, language practice guides and intelligent teaching integrators"; this change is necessary for the high-quality development of English education and also poses new challenges for the all-round development of teachers.

2. Core Components of College English Teachers' Teaching Competencies Under AI Empowerment

Together with the empowerment logic of intelligent technology and the goals of English teaching, the teaching competencies of English teachers need to be comprehensively strengthened into "intelligent English teaching competencies", and the four dimensions of this include:

2.1 Technical literacy: The skill of using intelligent English tools and analysing teaching data

The first two kinds of skills are: First, the ability to use intelligent tools, such as the AI module of the Chaoxing Learning Platform, VR/AR English immersion tools, iFLYTEK Oral Assessment and Grammarly; second, the ability to select suitable tools that can improve teaching in line with the goals of English teaching and the current level of students. Second, one needs to be able to process and analyze English teaching data; that is, collect and integrate data on students' learning behaviour and ability, generate learning status reports based on analysis, and use this data to make informed decisions in teaching^[3].

2.2 Teaching Integration: Ability to Design English Intelligent Scenarios and Carry out Precise Teaching

First, the purpose of applying technology in teaching is to create personalised and interactive English-learning environments that are in line with the laws of cognition and students' language-learning needs; secondly, it is hoped that through the collection of learning data, new teaching goals and specific language-practice activities can be developed to achieve the aim of "teaching students according to their aptitudes"; finally, intelligent simulations can help students enhance their application ability in language and cultivate cross-cultural communication literacy.

2.3 Professional Development: Ability to Innovate English Teaching and Lifelong Learning

Teachers need to have the following qualities: First, they should be able to develop new intelligent English-teaching models and explore new teaching methods in the direction of "artificial intelligence + English-teaching", such as project-based intelligent English teaching and intelligent intercultural communication training. Second, they need to have a spirit of lifelong learning to keep up with the trends of intelligent education and English-teaching integration, update their educational concepts and knowledge systems. Thirdly, they should be able to carry out research and reflection on teaching, conduct research projects that integrate intelligent teaching, and modify teaching strategies according

to their own thoughts.

2.4 General Literacy: The ability to lead English education and abide by ethical norms in intelligent teaching

First, the capacity of value guidance and humanistic care in intelligent teaching should be used to balance efficiency with ideological and political education, spread cross-cultural values through language teaching, and avoid "overly cold teaching". Second, ethical and normative abilities to comply with data security and student privacy protection regulations need to be employed rationally to use English-learning data and guide students to form a correct concept of technology use.

3. Practical Dilemmas in College English Teachers' Teaching Competencies

3.1 Superficial Technical Application and Lack of Adaptability in English Teaching Integration

Most English teachers' use of AI technology is at a basic level; they only use teaching platforms to upload courseware and assign homework and do not effectively apply core functions such as learning situation analysis and learning path planning. Grammarly and other professional tools are not very good; they do not consider the purpose of English teaching in schools or the students' own language abilities. Some teachers blindly introduce intelligent tools without integrating them with the key and difficult points in English teaching; thus, technology has become a "decoration" and has even hindered teaching^[4].

3.2 Rigid Teaching Concepts and Backward English Education Models

Under the influence of traditional teaching ideas, some teachers are still using a "one-size-fits-all progress and assessment" model and have not yet applied AI technology to meet the different learning needs of students in English. Most of the classroom interaction is one-way, and there are no rich English-speaking situations created with the help of intelligent tools to motivate students to speak. Too much emphasis has been placed on technological automation, neglecting emotions and culture in English classes; thus, the teaching atmosphere is now cold.

3.3 Lack of Comprehensive Literacy and Weak Interdisciplinary English Teaching Ability

The three parts of intelligent teaching are English professional literacy, educational technology skills and data literacy. However, the current teachers have certain shortcomings: they lack data literacy and therefore cannot properly interpret learning data and use it to guide teaching; they are unable to integrate AI technology with their own teaching experience and knowledge of English education; some teachers, especially those in their middle age or older, have a resistance to new technologies and have not kept up with the development of intelligent teaching.

3.4 Imperfect Evaluation Mechanism and Lack of Incentive and Guarantee for English Teaching

The current evaluation system only considers the results of students' English tests and the number of teaching hours; it does not assess the core competencies of teachers, such as technical application ability and achievements in English teaching innovation. The method of evaluation is too simple and one-sided. The incentive mechanism is not good: Colleges and universities have not included intelligent English teaching achievements in the main indicators of professional title assessment, and there are no special funds for teacher training and innovative practice, so teachers' motivation to reform is low.

4. Improvement Paths for College English Teachers' Teaching Competencies Under AI Empowerment

4.1 Laying a Foundation with Technical Literacy: Constructing a Hierarchical Training and Autonomous Learning System

4.1.1 Organise graded and grouped technical literacy training

Modify the training programmes for English teachers according to their various levels of technical knowledge. The first level is to learn how to use the basic functions of intelligent English teaching tools, such as the basic operation of platforms like Chaoxing Learning Hub and Yu Classroom, and simple applications of tools such as Grammarly and iFLYTEK's oral assessment system, so that teachers can begin to use intelligent teaching. In the middle is to organise data on English teaching and to collect and analyse information about students' learning. First, we need to build all kinds of VR/AR English environments. The form of the training will be: theory + case studies + practice + tests.

4.1.2 Construct an Independent Study and Communication Platform

Teachers are motivated to learn independently about theories and technologies in intelligent English teaching from MOOCs, academic journals, professional websites, etc. Good learning materials, such as the "Artificial Intelligence + Education" MOOC course, are recommended. A school-level "Intelligent English Teaching Exchange Community" will be established to organise regular experience-sharing meetings, case-study seminars and teaching-observation activities, promote collaboration among teachers, spread good teaching practices and problems in intelligent teaching, etc. Experts and famous educators in the field of intelligent education will be invited to give special lectures and demonstration classes to provide new ideas and practical advice for teachers.

4.2 Teaching Integration and Quality Improvement: Deepening the Practice of Scenario-based and Precision-oriented Intelligent English Teaching

4.2.1 Improving the Precision Design of Intelligent English Teaching Scenarios

Teachers should design three main intelligent teaching scenarios according to the curriculum goals and students' actual conditions.

a. Individualized Learning Scenarios: Intelligent tools can be used to present vocabulary and exercises at different levels according to the academic data of students, thus meeting the various learning demands of students at different stages in their studies.

b. Immersive Practice Scenarios: According to the main contents of academic English, business English and cross-cultural communication, create simulated environments using VR/AR technology, such as international business negotiations, academic presentations and cross-cultural exchanges, so that students can use the language in an immersive manner.

c. Various Interactive Scenarios: Add smart whiteboards, English voice chat rooms, online collaboration tools, etc., to create all sorts of interaction modes that promote teacher-student interaction, peer collaboration and group work^[5].

4.2.2 Promoting the Full Implementation of Precision English Teaching

Establish a good teaching cycle that covers all the links of "pre-class, in-class, and post-class"; before class, the intelligent teaching platform will post preview tasks, collect students' preparation information, identify knowledge deficiencies, and set differentiated teaching goals and plans. At the same time, there will be live-chat and other kinds of interactive feedback from the teacher. Teachers will change how they teach and at what speed based on the students' problems. AI tools can give personalised homework and feedback after class, such as writing correction suggestions from Grammarly and pronunciation guidance from iFLYTEK; they can also provide one-on-one AI tutoring and human help for students who have basic deficiencies so that they can learn in time. Teachers should periodically examine the learning data of the students and adjust their teaching plans based on this information.

4.3 Professional Development Empowerment: Optimising the Support System for English Teaching Innovation and Research

4.3.1 Promoting Innovation in English Teaching Concepts and Models

Guide teachers to have a student-centered mindset in intelligent education and fully realise the potential of AI in teaching English. AI will change the way we teach, and it will also help the teachers. According to the actual needs of the students, develop new types of courses, such as project-based AI-assisted English, cross-cultural communication simulations, blended learning with intelligent tools, etc. Expand the scope of application and improve the effectiveness of the curriculum by adding new practical courses, such as AI-assisted academic writing, e-commerce English and cross-cultural communication.

4.3.2 Enhance the Cultivation of Teaching Research and Scientific Research Abilities

Teachers need to carry out research projects to solve practical problems in intelligent teaching. The school will set up a "Smart English Teaching Innovation Special Project" to help teachers explore new teaching methods, ways of teaching, assessment, etc. Teachers will be allowed to participate in domestic and foreign academic exchanges on intelligent English teaching and publish high-quality academic papers and teaching research results. An integrated "teaching-research-practice" system will be established to promote the application of research results in teaching methods and the use of research findings in smart classes for the improvement of educational quality. Teachers can regularly record their thoughts on teaching in the smart teaching reflection journal to strengthen their sense of reflection and collect actual teaching results and problems for continuous improvement of teaching methods.

4.4 Evaluation System Escort: Strengthening the Mechanism of Ability Assessment and Incentive Guarantee

4.4.1 Build an All-Weather Teacher Competency Assessment System

We have set up an assessment system of the four types: technical literacy, teaching integration, innovation ability and overall literacy. The indices of technological literacy are the use of intelligent tools, processing of teaching data and application of new technologies. The degree of teaching integration can be shown by the construction of intelligent scenarios, the effectiveness of precise teaching, and students' learning results. Signs of the capacity for innovation are changes in teaching forms and new course materials. Overall literacy indices refer to the ability to be moral, moral consciousness and love for life. All kinds of indicators will be used in the judgment to ensure fairness and completeness of the results; these include AI data analysis, self-assessment, peer appraisal, student ratings, expert opinions, etc.

4.4.2 Strengthen Guarantees and Safety Nets

Add intelligent English teaching abilities and results to the main criteria for evaluating professional titles, performance and outstanding achievement awards. Teachers who have achieved outstanding results in the implementation of intelligent teaching and have been recognized by the school will receive praise, rewards, better positions, more funds, and so on. A special fund for the innovation of intelligent English teaching will be set up to help teachers develop intelligent teaching scenarios, educational tools and research. A portfolio of teacher competency development will be kept to record training information, practical results, research achievements, etc., for personalised professional development plans. A special technical support team will be set up to help teachers use the intelligent teaching tools and solve any technical problems. The development of teaching materials will be based on combining high-quality intelligent English teaching materials and building a resource-sharing platform to help teachers make better use of intelligent teaching.

Conclusion

Artificial intelligence has provided new impetus to the reform of college English teaching, promoted the leapfrog development of English teaching from the traditional model to the intelligent model, and at the same time put forward higher and more comprehensive requirements for the teaching competencies of college English teachers. English teachers' teaching competencies in the intelligent era are now compound abilities that include technical literacy, teaching integration, professional

development and comprehensive literacy; at present, many problems still exist among college English teachers, such as superficial application of technology, rigid teaching concepts, lack of comprehensive literacy and imperfect evaluation mechanisms, all of which hinder the full realisation of the benefits of intelligent teaching. Therefore, we need to enhance the technical foundation for teachers by building a hierarchical training and autonomous learning system, increase the impact of teaching integration by deepening the contextual and precise application of intelligent teaching, empower teachers' professional growth through strengthening the support system for teaching innovation and scientific research, and motivate teachers' enthusiasm for reform by improving the evaluation and incentive guarantee mechanism. Colleges and universities should make full use of their leading positions to provide teachers with the necessary training, resources and policy support, build a new English-teaching ecology based on "advanced technology, scientific thinking, profound humanism and collaborative efficiency", help English teachers achieve all-round improvement in teaching ability, nurture more well-rounded English talents with intercultural communication skills, innovation ability and global vision, and promote the high-quality development of college English education.

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