

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

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**Abstract:** Against the background of educational digital transformation, college English teaching is undergoing an in-depth transformation toward “intelligent empowerment”. Artificial intelligence has comprehensively reconstructed the entire process of English “teaching-learning-assessment”, imposing compound and high-level requirements on the teaching competencies of English teachers. Based on practical scenarios of intelligent teaching, this paper defines the four-dimensional core components of English teachers' teaching competencies in the intelligent era, systematically analyzes the practical dilemmas of teachers in technical application, teaching integration, professional literacy, and evaluation mechanisms, and constructs a systematic improvement path: “laying a foundation with technical literacy, improving quality through teaching integration, empowering professional development, and ensuring support via an evaluation system”. It provides operable practical guidance for English teachers to adapt to the intelligent teaching environment and improve teaching quality, so as to facilitate the digital, personalized, and efficient development of college English teaching.

**Keywords:** artificial intelligence; college English; English teachers; teaching competencies; improvement paths; intelligent teaching integration

## Introduction

With the in-depth penetration and extensive application of artificial intelligence in higher English education, college English teaching has officially entered a new stage of intelligence, personalization, and precision. Driven by data and scenario simulation, the intelligent teaching model has effectively solved long-standing pain points in traditional English teaching, such as “neglect of individual differences, lack of practical scenarios, single evaluation methods, and low teaching efficiency”, injecting strong momentum into the high-quality development of English education. However, the ultimate effect of technological empowerment essentially depends on the adaptability of English teachers' teaching competencies. As the core implementers and leaders of English teaching, teachers' technical application level, teaching integration ability, innovative thinking, and comprehensive literacy directly determine whether the educational value of intelligent technology can be fully released.

At present, some college English teachers still suffer from insufficient AI technical literacy, shallow integration of teaching and technology, outdated educational concepts, and weak interdisciplinary abilities, which make it difficult to fully exert the advantages of intelligent teaching, and even lead to phenomena such as “technological alienation” and “over-cold teaching”<sup>[1]</sup>. Therefore, systematically exploring the core components and scientific improvement paths of English teachers' teaching competencies in the intelligent era is of important theoretical value and practical significance for promoting college English teaching reform and cultivating compound international talents.

## 1. Core Characteristics of AI-Enabled College English Teaching

The core of AI-enabled English teaching lies in the deep integration of intelligent technology into the whole process of “teaching-learning-assessment”, realizing a fundamental transformation of the teaching model through technological empowerment. Its core characteristics are mainly reflected in three aspects:

First, teaching precision. Intelligent teaching systems can collect real-time learning data of students in various modules of English, including vocabulary accumulation, grammar mastery, listening, speaking, reading, writing, and translation. Such multi-dimensional information as answer accuracy,

learning duration, error types, and oral pronunciation details is analyzed via algorithms to generate personalized and visualized learning status reports, accurately locating students' weak knowledge points and competency shortcomings. This provides scientific data support for English teachers to carry out differentiated teaching and personalized tutoring, truly realizing “teaching based on learning” .

Second, practical contextualization. With the help of VR/AR immersive technology and intelligent oral assessment tools, highly simulated language practice scenarios can be created, such as cross-border business negotiations, academic English speeches, and intercultural communication dialogues, allowing students to immerse themselves in a near-real language environment to improve their comprehensive language application ability. This contextualized teaching not only makes up for the shortcomings of insufficient practice opportunities and single context in traditional teaching, but also stimulates students' learning interest and enhances the initiative and accuracy of language output<sup>[2]</sup>.

Third, management efficiency. AI tools can automatically complete repetitive and administrative work such as automatic grading of English objective questions, oral pronunciation scoring, listening practice marking, and learning progress tracking, greatly reducing teachers' teaching management burden. Statistics show that intelligent grading tools can shorten teachers' assignment correction time by more than 60%, enabling them to focus more on core teaching links such as instructional design, personalized tutoring, and thinking guidance, thus enhancing the depth and warmth of teaching.

This model promotes the transformation of English teachers from traditional “knowledge transmitters” to “English learning designers, language practice guides, and intelligent teaching integrators”, which is an inevitable trend for the high-quality development of English teaching and also poses an unprecedented challenge to teachers' comprehensive abilities.

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

Combined with the empowerment logic of intelligent technology and the goals of English teaching, English teachers' teaching competencies need to be comprehensively upgraded to “intelligent English teaching competencies” , whose core components include four dimensions:

### ***2.1 Technical Literacy: Ability to Apply English Intelligent Tools and Process Teaching Data***

This is a basic competency, mainly including two aspects: first, proficient application of intelligent tools such as the AI module of Chaoxing Learning Platform, VR/AR English immersion tools, iFLYTEK Oral Assessment, and Grammarly, and the ability to select appropriate tools to optimize the teaching process according to English teaching objectives and students' proficiency; second, possession of English teaching data processing and analysis ability, including collecting and integrating students' learning behavior and ability data, generating learning status reports through analysis, and converting data into a basis for teaching decisions<sup>[3]</sup>.

### ***2.2 Teaching Integration: Ability to Design English Intelligent Scenarios and Implement Precise Teaching***

This is the core competency for the deep integration of technology and teaching: first, designing personalized and immersive English interactive scenarios based on students' cognitive laws and language needs; second, formulating hierarchical teaching objectives and designing targeted language practice activities based on learning data to realize “teaching students in accordance with their aptitude” ; third, guiding students to improve their language application ability and communication literacy in cross-cultural contexts with the help of intelligent simulation scenarios.

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

Teachers are required to have: first, the ability to innovate intelligent English teaching models, and to explore new teaching methods of “artificial intelligence + English teaching” , such as project-based intelligent English teaching and intercultural communication intelligent training; second, lifelong learning ability, actively following the integration trend of intelligent education and English teaching, and updating educational concepts and knowledge systems; third, teaching research and reflective ability, carrying out research projects combined with intelligent teaching practice, and optimizing

teaching strategies through reflection.

### ***2.4 Comprehensive Literacy: Ability to Guide English Education and Abide by Ethical Norms in Intelligent Teaching***

First, the ability of value guidance and humanistic care, balancing efficiency and ideological guidance in intelligent teaching, infiltrating cross-cultural values through language teaching, and avoiding “over-cold teaching”; second, ethical and normative ability, complying with data security and student privacy protection regulations, rationally using English learning data, and guiding students to establish a correct concept of technology use.

## **3. Practical Dilemmas of College English Teachers' Teaching Competencies**

### ***3.1 Superficial Technical Application and Insufficient Adaptability in English Teaching Integration***

Most English teachers' application of AI technology stays at the basic operation level, only using teaching platforms to upload courseware and assign homework, without proficiently applying core functions such as learning situation analysis and learning path planning. The use of professional tools such as Grammarly is mostly fragmented, without designing application scenarios combined with English curriculum objectives and students' proficiency. Some teachers blindly introduce intelligent tools without integrating them with key and difficult points in English teaching, resulting in technology becoming a “decorative item” and even interfering with teaching<sup>[4]</sup>.

### ***3.2 Rigid Teaching Concepts and Backward English Education Models***

Influenced by traditional teaching thinking, some teachers still adopt the model of “unified progress and unified assessment”, failing to use AI technology to explore students' differentiated needs in English learning and realize personalized teaching. Classroom interaction is mainly one-way, without constructing in-depth English communication scenarios with the help of intelligent tools, leading to insufficient student language output. Over-reliance on technological automation neglects emotional communication and cultural infiltration in English teaching, resulting in a lack of warmth in teaching.

### ***3.3 Lack of Comprehensive Literacy and Weak Interdisciplinary English Teaching Ability***

Intelligent teaching requires English teachers to possess “English professional literacy + educational technology ability + data literacy”. However, current teachers generally have shortcomings: insufficient data literacy, making it difficult to interpret learning data and convert them into teaching decisions; weak interdisciplinary integration ability, unable to integrate AI and pedagogical knowledge into English teaching; some teachers, especially middle-aged and elderly teachers, resist intelligent technology and lag behind in updating their knowledge structure, making it difficult to adapt to the needs of intelligent teaching.

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

The existing evaluation system focuses on outcome indicators such as students' English test scores and teaching hours, ignoring the assessment of core competencies such as teachers' technical application ability and English teaching innovation achievements. The evaluation method is single and lacks multiple perspectives. The incentive mechanism is not sound: colleges and universities have not included intelligent English teaching achievements in the core indicators of professional title evaluation, and lack special funds to support teacher training and innovative practice, resulting in insufficient enthusiasm for teachers' reform.

## **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. Conduct tiered and categorized technical literacy training***

Tailored training programs are designed for English teachers with varying technical proficiency levels. The foundational tier focuses on mastering core functionalities of intelligent English teaching tools, including basic operations of platforms like Chaoxing Learning Hub and Yu Classroom, as well as simple applications of tools such as Grammarly and iFLYTEK's oral assessment system, to enable teachers to implement initial intelligent teaching processes. The intermediate tier emphasizes data processing in English teaching, covering data collection and analysis of student learning profiles. The advanced tier delves into sophisticated applications like designing VR/AR English scenarios. The training adopts a "theory + case studies + practical exercises + assessments" model to ensure effectiveness.

#### ***4.1.2. Establishing a self-directed learning and communication platform***

Teachers are encouraged to independently study theories and technologies related to intelligent English teaching through MOOCs, academic journals, and professional websites. High-quality learning resources such as "Artificial Intelligence + Education" MOOC courses are recommended. A school-level "Intelligent English Teaching Exchange Community" will be established to regularly organize experience-sharing sessions, case seminars, and teaching observation activities, fostering collaboration among teachers and facilitating the exchange of successful practices and challenges in intelligent teaching. Experts and renowned educators in the field of intelligent education will be invited to deliver specialized lectures and demonstration classes, providing teachers with cutting-edge concepts and practical guidance.

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

#### ***4.2.1. Enhancing the Precision Design of Intelligent English Teaching Scenarios***

Teachers should design three core intelligent teaching scenarios by aligning curriculum objectives with student needs:

a: Personalized learning scenarios: Using smart tools to deliver tiered vocabulary, differentiated exercises, and customized learning paths based on students' academic data, catering to learners at different proficiency levels;

b: Immersive practice scenarios: Focusing on core areas like academic English, business English, and intercultural communication, these utilize VR/AR technology to create simulated environments such as international business negotiations, academic presentations, and cross-cultural exchanges, enabling students to enhance language application skills through immersive experiences;

c: Diversified interactive scenarios: Integrating smart whiteboards, English voice chat rooms, and online collaboration tools to establish multidimensional interaction models that facilitate teacher-student engagement, peer collaboration, and group work<sup>[5]</sup>.

#### ***4.2.2. Promoting the Full Implementation of Precision English Teaching***

Establish a precision teaching loop covering the entire "pre-class-in-class-post-class" process: Before class, the intelligent teaching platform distributes preview tasks, collects students' preparatory data, identifies knowledge gaps, and develops tiered teaching objectives and plans. During class, real-time response tools, interactive polls, and voice conferencing enable dynamic monitoring of student engagement. Teachers adjust teaching pace and methods based on feedback, emphasizing key concepts and conducting targeted activities. After class, AI tools provide personalized assignments and feedback—such as Grammarly's writing correction suggestions and iFLYTEK's pronunciation guidance—while offering one-on-one AI tutoring and human support for students with foundational weaknesses to ensure timely knowledge consolidation. Meanwhile, teachers should regularly analyze learning data to continuously optimize teaching strategies, enhancing instructional precision and effectiveness.

### ***4.3 Professional Development Empowerment: Improving the Support Mechanism for English Teaching Innovation and Research***

#### ***4.3.1. Promoting Innovation in English Teaching Concepts and Models***

Guide teachers to embrace the student-centered approach in intelligent education, fully recognizing the transformative power of AI in English instruction. Position AI as a core driver for reshaping teaching paradigms rather than a mere aid. Encourage innovative methodologies like project-based AI-assisted English, cross-cultural communication simulations, and blended learning with smart tools, tailored to course features and student needs. Support content innovation by expanding practical modules—such as AI-enhanced academic writing, e-commerce English, and intercultural communication—to boost the curriculum's relevance and effectiveness.

#### ***4.3.2. Enhancing the cultivation of teaching research and scientific research capabilities***

Teachers are encouraged to conduct research projects addressing practical challenges in smart teaching practices. The school will establish a "Smart English Teaching Innovation Special Project" to support teachers in exploring innovative teaching models, methodologies, and evaluation systems. Teachers are also supported to participate in domestic and international academic exchanges on smart English teaching, publishing high-quality academic papers and teaching research outcomes. An integrated "teaching-research-practice" mechanism will be established to facilitate the translation of research findings into teaching practices, applying research conclusions to smart teaching to enhance educational quality. Additionally, teachers' reflective teaching skills will be cultivated through regular writing of smart teaching reflection journals, which will help summarize practical experiences and shortcomings, enabling continuous optimization of teaching strategies..

### ***4.4.Evaluation System Escort: Improving the Mechanism of Ability Evaluation and Incentive Guarantee***

#### ***4.4.1. Establishing a Diversified Teacher Competency Evaluation System***

We have established an evaluation system encompassing four key dimensions: technical literacy, teaching integration, innovation capability, and comprehensive literacy. Technical literacy indicators include proficiency in intelligent tool applications, teaching data processing skills, and technological innovation application levels. Teaching integration indicators cover the quality of intelligent scenario design, effectiveness of precision teaching implementation, and student learning outcomes. Innovation capability indicators encompass teaching model innovation, curriculum content innovation, and teaching research achievements. Comprehensive literacy indicators include value guidance ability, adherence to ethical norms, and implementation of humanistic care. The evaluation adopts a multi-dimensional model combining "AI data statistics + self-assessment + peer review + student evaluation + expert assessment" to ensure the objectivity and comprehensiveness of the results.

#### ***4.4.2. Strengthening Incentive and Safeguard Mechanisms***

Integrate intelligent English teaching competencies and outcomes as core criteria for professional title evaluations, performance assessments, and excellence awards. Teachers demonstrating outstanding performance and achieving remarkable results in intelligent teaching practices shall receive commendations and incentives, including priority promotions, performance-based salary increases, and teaching innovation awards. A "Special Fund for Intelligent English Teaching Innovation" will be established to support teachers in developing intelligent teaching scenarios, creating educational tools, and conducting research projects. Teacher competency development portfolios will be maintained to document training records, practical achievements, and research outcomes, providing a basis for personalized professional development plans. A dedicated technical support team will be formed to offer guidance on using intelligent teaching tools and troubleshoot technical issues, addressing teachers' technical concerns. Teaching resource development will be enhanced by consolidating high-quality intelligent English teaching materials and establishing a resource-sharing platform to ensure sufficient support for teachers implementing intelligent teaching methods.

## **Conclusion**

Artificial intelligence has injected strong momentum into the reform of college English teaching, promoting the leapfrog development of English teaching from the traditional model to the intelligent

model, and at the same time putting forward higher and more comprehensive requirements for English teachers' teaching competencies. In the intelligent era, English teachers' teaching competencies are compound abilities integrating technical literacy, teaching integration, professional development, and comprehensive literacy, all of which are indispensable. At present, college English teachers are faced with multiple dilemmas such as superficial technical application, rigid teaching concepts, lack of comprehensive literacy, and imperfect evaluation mechanisms, which restrict the full release of the value of intelligent teaching. Therefore, it is necessary to consolidate teachers' technical foundation by constructing a hierarchical training and autonomous learning system, improve the effect of teaching integration by deepening the contextual and precise practice of intelligent teaching, empower teachers' professional development by improving the support mechanism for teaching innovation and scientific research, and stimulate teachers' enthusiasm for reform by improving the evaluation and incentive guarantee mechanism. Colleges and universities should give full play to their leading role, provide necessary training, resources and policy support for teachers, and build a new English teaching ecology featuring “ advanced technology, scientific concepts, profound humanism, and collaborative efficiency ” , so as to help English teachers realize the comprehensive upgrading of teaching competencies, cultivate more compound English talents with intercultural communication ability, innovative ability and international vision, and promote the high-quality development of college English teaching.

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