

A Study on the Professional Development Path of High School English Teachers in the Era of Artificial Intelligence

Dandan Sun^{1*}

¹Ningbo No.4 Senior High School, China

*Corresponding author: dandansun2323@163.com

Abstract

The application of artificial intelligence (AI) in teaching has profoundly impacted high school English education. While AI transforms teaching models, it also presents significant challenges for high school English teachers. Therefore, this paper explores the professional development paths for high school English teachers in the AI era from three dimensions: the personal domain, the domain of practice, and the external domain.

Keywords : Artificial intelligence; High school English; Teacher professional development

Suggested citation : Sun, D. (2025). A Study on the Professional Development Path of High School English Teachers in the Era of Artificial Intelligence. *Journal of Current Social Issues Studies*, 2(6), 327–330. <https://doi.org/10.71113/JCSIS.v2i6.295>

Introduction

Modern information technology, marked by AI, is revolutionizing human production, lifestyles, and learning methods. In recent years, China has vigorously promoted the deep integration of AI and education, developing and optimizing AI platforms for education, encouraging teachers and students to master AI technologies, and enhancing digital literacy to foster personalized lifelong learning. Policy support and the rapid rise of educational AI highlight its pivotal role in education (Xu and Gu, 2025). The deep integration of AI and education is not only an inevitable trend but also a driving force for innovation in the field.

However, AI-driven educational reforms pose unprecedented challenges for English teachers. In English teaching, AI functionalities such as translation, speech recognition, and automated grading have significantly advanced learning support, contextual creation, and teaching evaluation (Li, 2021). This challenges the traditional role of English teachers, leading to professional identity crises. Current issues in teacher professional development include weak AI literacy and outdated teaching concepts (Lin, 2023). Thus, exploring effective professional development paths for English teachers in the AI era is urgent.

Characteristics of High School English Teaching in the AI Era

The development of AI has changed the teaching mode of high school English, giving rise to a new teaching mode that integrates integration, openness, interactivity and sharing (Li, 2021).

Sharing of Teaching Resources

With the help of the smart education platform, the preparation of pre-class teaching resources has evolved from the past independent work of individuals or teaching and research rooms to the collaborative efforts of inter-school master teacher teams (Cui and Zhou, 2022). Various high-quality courseware and video courses have condensed the wisdom of teachers, greatly enhancing teaching efficiency and quality, and to a certain extent, promoting educational equity among regions. Teachers can also improve their own teaching abilities by learning from and drawing on the courseware resources of other famous and outstanding teachers, taking the essence. With the help of the network cloud platform, students can instantly obtain the necessary courseware for previewing before class, reviewing after class and filling in knowledge gaps, thereby improving their learning efficiency.

Transformation of Teaching Environments

The traditional high school English classroom mainly focuses on vocabulary and grammar teaching, while oral English and listening teaching are relatively weakened. Even if some teachers attach importance to the teaching of this section, due to the limitations of the teaching environment and teaching resources, the interaction objects of students can only be peers and teachers, lacking real English communication situations (Xu and Gu, 2025), and the teaching effect is not ideal. However, in the era of AI, the generation of virtual environments can effectively create real contexts or scenarios for students, and there are numerous English oral practice software related to virtual characters emerging in the market. Its advantages are particularly

significant, such as real scenario simulation, standard English pronunciation, and correct English usage, which can improve students' oral English and listening skills, and at the same time increase the fun of English learning.

Advancement of Teaching Evaluation

Teaching evaluation and feedback are the core methods for testing teaching outcomes (Li, 2021). Traditional evaluation methods, relying primarily on teacher observations and standardized test scores, fail to provide accurate, equitable, or multidimensional insights into student learning. In contrast, AI-powered assessment systems demonstrate distinct advantages. Many intelligent assessment tools can not only grade quickly but also accurately reflect the distribution of students' grades, deeply analyze the points where each student lost marks, and display the ups and downs of their academic performance through charts. Moreover, widely-used AI-powered writing evaluation systems such as RealSkill, have significantly enhanced both the efficiency and accuracy of teachers' grading processes (Li, 2023), and can provide timely feedback on aspects such as vocabulary usage, grammatical errors, and sentence structure.

Challenges Faced by High School English Teachers in the AI Era

The application of AI in high school English teaching has promoted the leapfrog development of English teaching (Li, 2021). However, this torrent of technological innovation has also brought unprecedented challenges to the high school English teaching force

Pressure to Upgrade Professional Skills

The profound integration of AI and education has expanded the responsibilities of high school English teachers beyond language instruction to include mastery of intelligent teaching platforms and data analysis software (Chen, 2024). However, China's current high school teaching workforce demonstrates distinct characteristics: the proportion of mid-career teachers continues to grow steadily, while the influx of new teachers shows a gradual decline (Liu and Hui, 2021). Consequently, for most traditionally-trained educators, embracing modern pedagogical approaches and acquiring proficiency in intelligent teaching tools presents a significant professional challenge.

Concerns about Technological Replacement

In the era of artificial intelligence, an increasing number of intelligent teaching tools have demonstrated their advantages over traditional manual teaching in basic teaching (Chen, 2024). For instance, in English vocabulary teaching, English grammar teaching, and even English writing correction, AI has shown its high accuracy and efficiency. It is gradually weakening, replacing and even surpassing the traditional roles of teachers in aspects such as knowledge transmission, assessment and learning guidance (Zhang, 2020). This has compelled high school English teachers to re-examine their career development paths, triggering a series of issues regarding career security.

Identity Crisis

Teacher identity is the answer to "who I am" and "who I want to be", reflecting teachers' cognition and understanding of their professional roles, and also including others' views of teachers (Beijaard et al., 2004). The impact of AI on basic education has directly triggered the identity crisis of teachers (Xu and Gu, 2025). AI not only fully permeates every link of teaching, but can even undertake some teaching tasks, directly challenging the original dominant position and irreplaceability of teachers in teaching. Consequently, some English teachers experience an identity crisis due to their inadequate professional competencies or insufficient technological proficiency. On the other hand, as AI has deeply integrated into the teaching process, the traditional interaction between teachers and students has gradually evolved into a tripartite interaction of "teacher - student - AI" (Xu and Gu, 2025). Therefore, this will to some extent reduce the direct communication and interaction between teachers and students, triggering an identity crisis at the level of emotional communication.

Professional Development Paths for High School English Teachers in the AI Era

The deep integration of AI and English teaching is an inevitable trend. Therefore, in the new era, high school English teachers should follow the trend and seek a path suitable for their own professional development.

According to the *Interconnected Model of Teacher Professional Growth* proposed by Clarke (2002), teachers' professional development is subject to the circular interaction of four fields. First is the external domain, that is, external triggering factors, such as school or social support, etc. Secondly, there is the personal domain, namely the professional knowledge, beliefs and attitudes of the teacher as an individual. The practical field covers all teaching and practical activities. Finally, the result domain refers to the significant results achieved. The four fields interact in a cycle and jointly contribute to the professional development of teachers. Therefore, this article will explore the professional development path of high school English teachers from three aspects: the external domain, the personal domain and the practical domain.

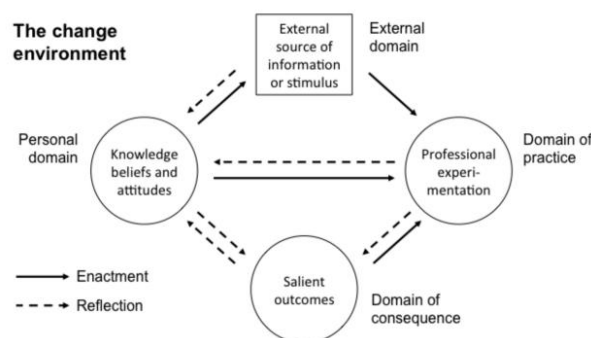


Figure 1. The Interconnected Model of Teacher Professional Growth (Clarke & Hollingsworth, 2002).

Personal Domain: Enhancing Competencies

The core elements of the internal development of English teachers lie in the improvement of professional knowledge and quality (Li, 2021). In the face of the changes of The Times and the continuous reform of the college entrance examination, adhering to old ways and not striving for progress is not feasible. On the contrary, high school English teachers should constantly expand their professional knowledge, learn new grammar and pragmatic expressions, increase their professional knowledge reserves, and at the same time, they need to explore advanced teaching methods and models, and skillfully utilize various online resource platforms, such as MOOCs and high-quality course platforms. Learn various teaching models to enrich one's professional knowledge.

Secondly, enhance the application capabilities of artificial intelligence technology. With the popularization of intelligent teaching platforms and tools, high school English teachers should actively accept and learn how to use various intelligent teaching tools and combine such technologies with their own classroom teaching practices. In listening and speaking teaching, various virtual platforms can be used to create real contexts for students, enabling them to use English as if they were on the spot. In reading teaching, modern multimedia software such as Seewo whiteboard can be used, and appropriate game sections can be added. Through the way of solving problems in groups, students' sense of interaction and participation in the classroom can be increased, and the teaching efficiency can be improved. In writing teaching, automatic correction software can be used as an auxiliary tool to correct students' grammar mistakes one by one, give comprehensive evaluations and timely feedback, so as to improve the efficiency and accuracy of correction. In daily tests, English teachers can also use software with score analysis functions such as Doorway Easy Test to understand students' points of loss and weak points in knowledge, grasp the ups and downs of each student's scores, and adjust teaching methods accordingly to truly achieve teaching based on individual aptitude.

Domain of Practice: Reflection and Adaptation

Teacher development is fundamentally a cognitive evolution process grounded in practice, propelled through self-reflection and continuous validation (Li, 2021). Therefore, in the face of AI-driven educational transformation, English teachers must engage in ongoing self-reflection. For instance, is the AI-designed teaching segment logically structured? With AI as the foundation, only through persistent reflection can teachers identify shortcomings in their teaching practices, refine their methodologies, and fully leverage AI's potential in English instruction.

External Domain: Institutional Support

Clarke's teacher professional development model places particular emphasis on the external domain, specifically highlighting institutional support from schools as indispensable for teacher growth (Yao, 2020). Therefore, schools should refine teacher training systems by conducting targeted needs assessments (e.g., surveys or polls) to identify English teachers' specific requirements, ensuring customized professional development programs. Additionally, schools should provide adequate hardware and software facilities, and engage professional IT technicians to deliver both online and offline training on the use of intelligent teaching platforms, thereby enhancing teachers' technological application capabilities.

Conclusion

The application of AI in high school English teaching has profoundly transformed instructional models and significantly enhanced teaching efficiency. In this new era, it has become particularly crucial to explore professional development pathways tailored to individual needs. High school English teachers should comprehensively upgrade their competencies, including both professional expertise and technological application skills, while actively engaging in teaching practice with continuous self-reflection and improvement. Simultaneously, educational institutions must provide robust external support systems. Only through such concerted efforts can educators maintain their competitive edge amidst the surging tide of AI advancement.

Acknowledgment

All contributions of the third parties can be acknowledged in this section.

Conflict of Interest

The authors declare no conflict of interest.

References

- [1] Beijaard, D., Meijer, P. C., & Verloop, N. (2004). Reconsidering research on teachers' professional identity. *Teaching and teacher education*, 20(2), 107-128.
- [2] Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and teacher education*, 18(8), 947-967.
- [3] Chen, H. Y. (2024). '人工智能时代高校英语教师专业发展路径研究' [Research on Professional Development Paths of College English Teachers in the Era of Artificial Intelligence], *Modern English*, (08), 83-85.
- [4] Cui, Y. and Zhou, D. F. (2022). '人工智能时代高职英语教师专业发展机遇、挑战及策略探讨' [Discussion on the Opportunities, Challenges and Strategies of Professional Development for English Teachers in Higher Vocational College of the Artificial Intelligence Era], *Office Informatization*, 27(04), 37-39+52.
- [5] Li, M. Q. (2023). '智能批改系统在“应用文写作”课程中的应用' [The Application of Intelligent Marking System in the Course of Practical Writing], *Jiangxi Education*, (39), 17-19.
- [6] Li, N. N. (2021). '人工智能时代高校外语教师专业发展研究' [On Professional Development of College Foreign Language Teachers in the Era of Artificial Intelligence], *Journal of Chengdu Normal University*, 37(07), 20-26.
- [7] Lin, X. H. (2023). '人工智能视域下的教师专业发展路径探析' [Analysis of Teachers' Professional Development Paths from the Perspective of Artificial Intelligence], *Education Exploration*, (09), 84-88.
- [8] Liu, R. and Hui, X. J. (2021). '我国高级中学教师队伍结构及现状分析' [Analysis of the Structure and Current Situation of the Teaching Staff in Senior High Schools in China], *Ability and Wisdom*, (13), 133-135.
- [9] Xu, Y. T. and Gu, Y. (2025). '人工智能时代的外语教学与外语教师专业发展:挑战、身份认同危机与出路' [Foreign Language Teaching and Professional Development of Foreign Language Teachers in the Era of AI: Challenges, Identity Tensions and Solutions], *Contemporary Foreign Language Studies*, (01), 60-72.
- [10] Yao, L. N. (2020). 'AI+教育”时代外语教师角色定位及专业发展路径探究' [Exploration of the Role Positioning and Professional Development Path of Foreign Language Teachers in the Era of AI+ Education]. (eds.) *Research on the Development and Innovation of Foreign Language Education and Translation (Volume Nine)* (pp.100-103). Zhejiang Yuexiu University of Foreign Languages;
- [11] Zhang, X. L. (2020). '智能时代高校教师的身份危机及其重塑' [The Identity Crisis of University Teachers in the Intelligence Era and Its Reshaping], *Modern Educational Technology*, 30(11), 5-11.