

Exploring Pathways to Professional Development of English Teachers Empowered by Digitalization in Education

Siqi Han^{1,*}, Jie Zhong²

¹ China West Normal University, Nanchong, Sichuan, 637009, China

² Chongqing No.8 Secondary School, Chongqing, 401120, China

* Corresponding author: Siqi Han

Abstract: Since the 21st century, the wave of digitization has profoundly changed the way of production and life in human society. Digitally empowered teacher development has become a new trend in teachers' professional growth, and the practice of digitally empowered teacher development not only helps teachers adapt to the new technological revolution, but also provides a solid foundation for cultivating high-quality talents in the future. This paper will start from the characteristics of the professional development of English teachers digitally empowered by education in China, and further explore the feasible paths to promote the professional development of English teachers with different roles, so as to provide feasible pathways for English teachers, and then continuously improve their information literacy and technology application ability, better use of digital technology to optimize the content of teaching and innovate the teaching methods, and ultimately promote the overall development of students to adapt to the needs of the future society.

Keywords: Digitalization of Education; Teachers' Professional Development; English Teacher.

1. Introduction

With the rapid development of society, China's teacher education system is gradually transforming from "specialization" to "professionalization", and this process is of great significance in enhancing the quality of teacher training and promoting the progress of China's education (Zhao & Feng, 2024). Recently, the Central Committee of the Communist Party of China (CPC Central Committee) and the State Council released *the Opinions on Carrying Forward the Spirit of Educators and Strengthening the Construction of a Highly Qualified and Professional Teaching Force in the New Era*, which explicitly proposes that the spirit of educators be internalized as the core values of the majority of teachers, with the aim of constructing a high-quality and professional teaching force that meets the requirements of the new era, and to promote the modernization of the teaching force's governance system and governance capacity. The implementation of the Opinions further emphasizes the importance of digitally empowering teacher development, making it gradually become the new normal for promoting teachers' professional growth.

Since the beginning of the 21st century, the wave of digitization has reshaped the way of production and life of human society with unprecedented breadth and depth, opening an unprecedentedly broad space for cognitive upgrading, life pattern innovation and productivity enhancement. The field of education is no exception, especially the practical exploration of digitization-enabled teacher development, which not only provides strong support for teachers to actively adapt to the new technological revolution, but also lays a solid foundation for the cultivation of future-oriented high-quality talents. In this context, it has become an urgent and significant task to explore how the digitalization of education can effectively empower the professional development of English teachers.

2. Characteristics of Professional Development of English Teachers Empowered by the Digitalization in Education

In terms of the professional development of English teachers, China has both drawn on advanced international experience and innovated and developed in conjunction with its own national reality and has come out with a unique road of professional development in teacher education. In recent years, the state has issued a series of policies on the construction of the teacher team and the reform of teacher education, such as *the Opinions on Carrying Forward the Spirit of Educators and Strengthening the Construction of a Highly Qualified and Professional Teacher Team in the New Era of the Central Committee released by the CPC Central Committee and the State Council and the Opinions on Comprehensively Deepening the Reform of Teacher Team Construction in the New Era* released by the Communist Party of China and other important documents, which provide a clear direction and requirements for the development of China's teacher education system and ensure that the teacher team construction supports and guarantees the construction of a strong educational country and supports the construction of a modernized socialist country.

(1) Autonomous Development

Digitally empowered autonomous development of English teachers is a multidimensional and continuous process that combines the deepening of educational concepts, the expansion of professional knowledge, and the reflection on teaching practice. First of all, consciously practicing the spirit of educator is the core driving force for the autonomous development of English teachers. This means that teachers need to take the initiative to integrate high ideals and teacher ethics into their personal professional growth path. Secondly,

self-improvement using digital platforms is an effective way for English teachers to adapt to the changing times and broaden their professional horizons. With the rapid development of information technology, all kinds of online courses, educational forums, academic resource libraries and other digital platforms provide teachers with unprecedented learning resources and communication space. English teachers can make use of these platforms to continuously enrich and improve their professional reserves and enhance the quality and efficiency of teaching. In addition, self-reflection through the smart teaching and research platform is a key link for English teachers to realize professional growth (Du & Zhao, 2024). Smart teaching and research platforms utilize big data, artificial intelligence, and other technologies to provide teachers with a convenient mechanism for analyzing and providing feedback on teaching data. Teachers can use these platforms to record and analyze the gains and losses in the teaching process, observe students' learning effectiveness and responses, and then conduct in-depth self-reflection. This evidence-based self-examination helps teachers identify blind spots and deficiencies in teaching practice, adjust teaching strategies in a timely manner, and promote teaching innovation and personalized teaching.

(2) Synergistic Development

The digitalization of education makes access to educational resources more convenient and efficient by creating a digital educational resource base that is built, shared and governed by the public, and empowers teachers to use high-quality, scientific resources to improve their professional development. The digitization of education has subverted the traditional educational resources based on empirical and technological knowledge, and educational resources are no longer limited to educational and teaching facilities and equipment, books and materials, etc. Instead, enterprises, governments, society, and schools co-construct educational resource libraries, generating a new type of educational resources that are co-created on multiple platforms and at multiple levels (Chen & Yu, 2024). In addition, some scholars have proposed that teacher professional development in the age of digital intelligence can generate innovative paths through cross-border learning (Ma et al, 2024). Cross-boundary learning is a mode that breaks the boundaries of different disciplines, technologies and fields, and realizes deep learning through interaction and collaboration among them. Teachers' cross-boundary learning refers to the fact that based on their own subject knowledge, teachers actively seek intersection and integration with other subjects, fields or technologies, which is mainly reflected in the three major aspects of cross-boundary integration of subject knowledge, the integration of technology and educational concepts, and the comprehensive application of practical experience.

3. Pathways to the Professional Development of English Teachers Empowered by the Digitalization in Education

(1) Teachers and Students - Smart Classrooms Improve Teaching and Learning Efficiency

In the process of exploring how to promote the professional development of English teachers empowered by digitalization of education, the core role faced by teachers is that of students, so how to effectively utilize information technology in order

to enhance their teaching ability has become a crucial topic. Nowadays, the acceptance of digital education by the teacher community. In order to overcome these challenges, teachers can be empowered by utilizing rapidly developing smart teaching systems (Liu, 2024). Specifically, these systems have a number of features that can greatly facilitate teacher-student and student-student interactions. For example, through the "Question and Answer" function, teachers can not only realize instant interactive feedback in the classroom, but also observe the students' thinking process, so as to accurately grasp the learning situation.

In addition, relying on the application of multidimensional educational data is also an important way to promote the professional development of English teachers. Through the digital platform, teachers can dynamically collect and analyze information on students' learning process, homework performance, and personality traits, which provide a window for teachers to deeply understand students' cognitive and non-cognitive states. Through in-depth analysis of this information, teachers can more accurately grasp the learning characteristics of each student, assess their strengths and best learning styles, and thus identify common and individual problems in student learning. On this basis, teachers can provide students with more personalized and targeted educational support to meet their diverse learning needs.

Therefore, by making full use of information technology and digital platforms, teachers can more accurately grasp the learning situation, dynamically adjust their teaching strategies, and provide personalized educational support. In this process, teachers not only improve their own teaching ability, but also create a more efficient and personalized learning environment for students.

(2) Teachers and Teachers - Digital Teaching and Research to Enhance Engagement

In the context of digital empowerment in education, the promotion of English teachers' professional development can also lie in how teachers can effectively collaborate and learn from each other, thus promoting the improvement of English teachers' professionalism. First, AI technology is utilized to comprehensively collect complete data of classroom teaching, including but not limited to teachers' classroom videos, detailed records of teaching history, and students' responses, etc., which are then uploaded to the school's cloud platform to serve as a solid scaffolding for reviewing lessons. This practice provides a wealth of materials and evidence for teachers, teachers who listen to the lessons, and the whole teaching and research team to carry out solo, collaborative, and group research activities based on these data. Solo research activities focus on teachers' personal reflection and self-improvement. Teachers can use AI-generated lesson reports to gain an in-depth understanding of their own teaching performance, clarify the direction of improvement, and then carry out targeted reflection on teaching and practice improvement. Teachers who listen to the lessons can use the cell phone application to record their thoughts and insights instantly through text, voice, pictures and other forms in conjunction with the key points of lesson observation set by the teaching and research team. This innovative "crowdfunding listening book" mode greatly enriches the form and content of feedback from the lessons. Joint research activities emphasize teamwork and data analysis among teachers. After uploading the lesson examples to the cloud platform, teachers worked in groups to formulate lesson observation scales according to the needs of their respective

topics, and analyzed the data provided by the platform to reach a consensus and a conclusion. This process not only promotes knowledge sharing and experience exchange among teachers, but also enhances the ability to analyze data and solve problems. Moreover, the group research activities were more focused on the refinement and in-depth discussion of teaching and research themes. The teaching and research group extracted the conflict points, hot spots and doubts in the comments through the platform's lesson discussion records, and then generated targeted teaching and research themes to carry out sliced seminars. This problem-oriented seminar effectively improves the common problems of unclear focus and low training efficiency in the past teaching and research activities and makes the teaching and research activities more focused and efficient.

(3) Teachers and Society - Scientific Resources to Raise the Quality of Education

In the process of promoting the professional development of English teachers empowered by the digitalization of education, teachers should make full use of the co-construction and sharing mechanism of the digital education resource base, combine with the communication characteristics of the all-media era, and jointly promote the innovation and upgrading of the concept of education, so as to lay a solid foundation for cultivating a team of English teachers with digital literacy and professional competence.

The digitization of education has greatly enhanced the convenience and efficiency of access to educational resources through the construction of a digital educational resource base system of common construction, sharing and governance, thus empowering educators and learners to enjoy more high-quality and scientific educational resources. This process not only marks a fundamental change in the way of accessing educational resources, but also profoundly subverts the traditional pattern of educational resources dominated by empirical and technical knowledge. Specifically, the digitization of education has prompted the education resources are no longer limited to the traditional teaching facilities and equipment, books and other physical forms, but expanded into a dynamic construction process involving enterprises, government, society, schools and other multi-dimensional subjects. In this process, the generation of new educational resources not only includes the free creation of individuals, but also covers the collaborative creation of groups, forming a content-rich and diverse educational resources ecology.

On this basis, English teachers should rely on the synergy of diversified educational media, especially in the teaching process in the context of the all-media era, to educate students on moral character. On the one hand, English teachers need to deeply penetrate the correct view of news and public opinion in education and teaching activities, so as to lead the healthy development of the ideological and moral construction of young people; on the other hand, English teachers should make full use of the communication advantages of the new media platform to convey the concept of ideological and political education to the community, and to gather the consensus of all walks of life on the development of education. The digitalization of education through virtual reality simulation teaching, virtual teaching room and other new

educational resources, English teachers to carry out situational teaching, game learning and so on to enhance the real-time interaction between people and the environment, to support the students to immerse themselves in the problematic situation created, can improve the interactive effect of the direct and indirect experience in the education process, to enhance the students' interest in learning, and to improve the quality of education.

4. Conclusion

In the era of digital empowerment, English teachers are able to broaden their field of specialization and enrich their knowledge base with the help of information technology platforms. By reading the cognitive state of students and analyzing the learning characteristics of each student through information, teachers can more accurately grasp the learning situation, dynamically adjust their teaching strategies and provide personalized educational support. Moreover, the use of information tools effectively makes up for the shortcomings of inexperience, not only providing more accurate, scientific and convenient support for teaching and research guidance, but also promoting their own learning and professional enhancement through the flexible use of technological tools. In addition, by linking up with external high-quality educational digital resources, teachers can consciously become facilitators of student learning, researchers of education and teaching, and developers of teaching courses.

References

- [1] Chen Peng, Yu Xilan. Digital Education Empowering the Right to Education: Contemporary Connotation, Legal Risks and Regulation[J]. Journal of the Chinese Society of Education, 2024, (4): 44-50.
- [2] Du Liangping, Zhao Rong. A Preliminary Study on Intelligent Teaching-Research Model Based on "AI+"[J]. Journal of the Chinese Society of Education, 2024, (5): 103.
- [3] Li Lin. Digital Platforms Promoting Professional Development of Young Teachers[J]. Journal of the Chinese Society of Education, 2024, (5): 105.
- [4] Liu Jingru. Reshaping Teacher Competency System in the Context of Educational Digitalization[J]. Journal of the Chinese Society of Education, 2024, (5): 106.
- [5] Ma Junqian, Wang Yuqing, Qian Lixia. Cross-Boundary Learning Based on Human-Machine Collaboration: New Path for Teacher Professional Development in the Digital-Intelligence Era[J]. Journal of Gansu Open University, 2024, 1-9.
- [6] Zhao Ping, Feng Yuan. From "Specialized Training" to "Professional Education": The Transformation and Development of Teacher Education for Building a Strong Education Nation[J]. Journal of the Chinese Society of Education, 2024, (9): 13-18.
- [7] Central Committee of the Communist Party of China, State Council. Opinions on Promoting the Spirit of Educators and Strengthening the Construction of High-Quality Professional Teaching Staff in the New Era[N]. People's Daily, 2024-08-27(001).