

Challenges and Countermeasures for Improving Digital Literacy of English Teachers in Ethnic Colleges of West China

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Abstract: In the current context of information society, the digital literacy of college English teachers has become an important issue in educational reform and development. In ethnic colleges of west China, due to geographical, cultural, and resource limitations, the digital literacy level of college English teachers is generally low, which has caused certain difficulties in improving teaching quality and cultivating students' comprehensive qualities. Therefore, how to improve the digital literacy of English teachers in ethnic colleges of west China has become an urgent problem to be solved. This article takes English teachers in ethnic colleges of west China as the research object. Through a survey and analysis of their digital literacy status, it is found that the main problems include inadequate digital technology application ability, insufficient development and utilization of digital teaching resources, and lagging updates on digital teaching concepts and methods. In response to these issues, this article proposes some effective improvement paths to strengthen teachers' digital technology training to improve their practical ability, to optimize the allocation of digital teaching resources and fully utilize existing resources, and to guide teachers to improve their teaching philosophy and explore innovative teaching methods.

Keywords: Digital Literacy; Challenges and Countermeasures; College English Teachers; Ethnic Colleges of West China

1. Introduction

In the wave of globalization and digitization, the importance of English education is increasingly prominent. In ethnic colleges of west China, the role of college English teachers is not only to impart language points, but also to cultivate students' cross-cultural

communication skills, broaden their international perspectives and guide them to establish correct values and worldviews. With the rapid development of information technology, digital teaching has become a new norm in the field of education. This undoubtedly brings new challenges to college English teachers, especially in terms of digital literacy. What is digital literacy of teachers? Digital literacy of teachers involves knowledge and application skills in various aspects, such as technology, media, and data. For college English teachers, improving digital literacy not only means being able to proficiently use various digital teaching tools, but also means being able to effectively integrate these tools to create creative and effective teaching activities. College English teachers in ethnic colleges of west China face special challenges. Firstly, due to geographical location and resource limitations, ethnic colleges of west China lack advanced digital teaching equipment and high-quality online teaching resources. Secondly, students come from diverse backgrounds and their level of digital literacy varies greatly. In addition, teachers in ethnic colleges of west China also lack relevant training and support. Therefore, studying the improvement of digital literacy among English teachers in ethnic colleges of west China has important theoretical and practical significance. In theory, this helps to enrich and improve the research framework of digital literacy, especially in specific educational environments and groups. In practice, this can not only help teachers cope with the challenges of digital teaching and improve teaching quality better, but also provide useful experience and inspiration for other educational institutions. In short, with the advent of the digital age, the roles and responsibilities of college English teachers are undergoing profound changes. How to adapt to this change and improve one's digital literacy has become a problem that every English

teacher must face. For teachers in ethnic colleges of west China, this is not only a challenge, but also an opportunity.

2. Overview on Digital Literacy of College English Teachers

2.1 Definition and Connotation of Digital Literacy

The term digital literacy encompasses a range of knowledge and skills related to digital technology. Digital literacy includes the ability to understand, evaluate, use, and manage digital information. This includes proficiency in digital technology, such as the use of search engines, email management, and the application of online collaboration tools. This also includes the ability to understand and evaluate digital information, such as data analysis, interpretation, and critical thinking. It also includes the effective utilization and management of digital information, such as information retrieval, organization, sharing, and protection. In the field of education, the digital literacy of college English teachers is not only reflected in their proficient application of digital technology, but also in how they integrate digital technology into teaching to improve teaching efficiency.

2.2 The Importance of Digital Literacy for College English Teachers

Teachers are the main force in improving educational levels. To promote digital education, it is necessary to continuously enhance teachers' digital education abilities. Digital teaching ability refers to the use of digital technology by teachers to explore and develop new educational models and methods, and to improve and perfect their educational strategies in various forms. In various educational stages and contexts, teachers use digital technology reasonably to provide students with timely and targeted guidance and assistance. ^[1] In the time of digital education, the digital literacy of college English teachers is particularly important. Digital literacy, as one of the core competencies of the 21st century, not only refers to the ability to master digital technology, but also is an interdisciplinary and comprehensive ability that covers multiple fields such as information, media, and technology. For college English teachers, digital literacy is both related to their

teaching efficiency and an inevitable choice for them to adapt to the digital transformation of education. At first, a high level of digital literacy helps college English teachers integrate into digital teaching environments better. With the deepening of educational informatization, digital teaching resources have sprung up like mushrooms after rain, providing rich materials and means for teaching. Teachers with high digital literacy can quickly grasp and utilize these resources, integrate them into teaching, and thus improve teaching efficiency. Second, digital literacy is also the key for college English teachers to cultivate students' comprehensive qualities. In the context of globalization, English has become an important tool for international communication. The communication methods in the digital environment are fundamentally different from traditional face-to-face communication. Only teachers with high digital literacy can guide students to master these new ways of communication and cultivate their cross-cultural communication skills. Third, digital literacy is also of great significance for the professional development of college English teachers themselves. In the digital age, teachers are no longer the sole transmitters of knowledge, but partners who need to explore and grow together with students. Teachers with high digital literacy can better utilize digital tools for educational research and continuously improve their educational and teaching level.

3. Analysis on the Current Status of Digital Literacy of English Teachers in Ethnic Colleges of West China

3.1 Current Status of Digital Technology Application Capability

Through research on English teachers in ethnic colleges of west China, it was found that they have certain deficiencies in digital technology application abilities. From the perspective of hardware devices, some teachers still have certain gaps in high-end teaching equipment such as electronic blackboards and projectors. This gap not only limits the ability of teachers to showcase multimedia teaching resources in the classroom, but also affects their enthusiasm for using digital technology for teaching innovation. From the perspective of software applications, some teachers still need

to improve their application abilities in professional teaching software such as teaching management systems and online testing systems. This situation affects the efficiency of teachers in curriculum designing, teaching evaluation, and other aspects of work. From the perspective of network skills, some teachers still need to improve their skills in advanced network skills such as searching and filtering online teaching resources, network security and protection. This situation increases the risks that teachers face in online teaching to some extent. From the overall level of digital literacy, some teachers often lack systematic and in-depth training and learning opportunities in their actual teaching work. This situation restricts the speed of their digital literacy improvement and application effectiveness. In summary, there are certain deficiencies in the digital technology application ability of English teachers in ethnic colleges of west China.

3.2 Current Status of Development and Utilization of Digital Teaching Resources

The lack of advanced digital education resources and digital teaching platforms in ethnic colleges of west China has hindered the improvement of teachers' digital literacy. [2] Based on in-depth research on the digital literacy of English teachers in ethnic colleges of west China, it has been found that they have some problems in the development and utilization of digital teaching resources. From the perspective of resource development, some teachers face many difficulties in practical operations. For example, due to the lack of relevant technical support and training, they often feel inadequate in producing and developing high-quality digital teaching resources. In addition, due to time and human resource constraints, it is also difficult for them to continuously update and improve their digital teaching resource library. From the perspective of resource utilization, English teachers in ethnic colleges of west China also have certain problems. On the one hand, due to the lack of effective teaching methods and strategies, they often feel at a loss when integrating digital teaching resources into classroom teaching. On the other hand, due to a lack of in-depth understanding of students' learning needs, they often cannot achieve precise integration when selecting and using

digital teaching resources.

3.3 Current Status of Digital Teaching Concepts and Methods

In ethnic colleges of west China, the current situation of teachers' digital literacy in English teaching shows some obvious characteristics. Firstly, teachers have varying levels of understanding and acceptance of digital teaching concepts. Some teachers have fully recognized the importance of digital teaching, actively embracing new teaching methods and attempting to integrate digital tools into classroom teaching to improve teaching efficiency. However, there are also some teachers who hold a conservative attitude towards digital teaching. They tend to prefer traditional teaching methods and have a relatively low understanding and acceptance of digital teaching. Secondly, teachers also have some problems in the application of digital teaching methods. Although most teachers are able to use basic digital teaching tools, such as electronic blackboards and online learning platforms, their experience and skills in effectively utilizing these tools for teaching still need to be improved. In addition, teachers often lack systematic and scientific approaches in designing and implementing digital teaching plans, which affects teaching efficiency.

4. Challenges in Improving Digital Literacy of English Teachers in Ethnic Colleges of West China

4.1 Regional, Cultural, and Resource Limitations

Ethnic colleges of west China have created a complex environment due to geographical, cultural, and resource constraints, which has had a profound impact on improving the digital literacy of teachers. Regional restrictions are mainly reflected in the level of economic development and the allocation of educational resources. Ethnic colleges of west China are economically underdeveloped and have a shortage of funds, often unable to invest sufficient resources to enhance the digital literacy of teachers. Because of the remote geographical location, teachers are unable to access the latest educational technologies and applications in a timely manner, which undoubtedly hinders their digital literacy improvement. The limitations

of culture are mainly reflected in the educational concepts and teaching methods of teachers themselves. In some ethnic colleges of west China, traditional teaching methods still dominate, and teachers may be more inclined to use traditional teaching methods while ignoring the importance of digital teaching. Because of cultural differences, some teachers may hold a conservative attitude towards new educational technologies and methods, which may also hinder their digital literacy improvement. The limitations of resources are mainly reflected in hardware facilities and software resources. Due to a lack of funding and technical support, it is not possible to provide sufficient hardware facilities and software resources to support the improvement of teachers' digital literacy.

4.2 Inadequacies in Training and Development for Teachers

The comprehensive ability of college teachers is directly related to the quality of higher education. Only when the teachers have corresponding digital knowledge, skills and innovation capabilities, can they accelerate the qualitative transformation of higher education's digital transformation by strengthening the organic interaction between higher education and digital technology.^[3] The lack of training and development is an important issue. The content and methods of training need to be further optimized. Currently, many training programs place too much emphasis on imparting theoretical knowledge, while neglecting the cultivation of practical skills. This leads to many teachers, although they have mastered theoretical knowledge, feeling inadequate in practical operations. Some training programs overly emphasize the application of technology, while neglecting the updating of educational concepts and the innovation of teaching methods. This often puts teachers in a passive situation when facing digital teaching environments, unable to effectively utilize digital technology to improve teaching quality. There are also issues with the frequency and sustainability of teacher training. Because of various reasons, many teachers are unable to participate in regular training, resulting in their digital literacy not being improved in time. At the same time, some training programs lack continuity, which makes it difficult for

teachers to receive effective guidance and support after completing the training, thereby affecting their performance in actual teaching. Additionally, the evaluation mechanism for the effectiveness of teacher training still needs to be improved. At present, many training programs lack effective evaluation mechanisms, making it difficult to accurately understand the learning situation and progress of teachers. This not only prevents teachers from receiving timely feedback and guidance, but also makes it difficult for training institutions to evaluate accurately and improve training effectiveness. The career development path of teachers also needs to be further clarified. In the current educational environment, the career development of teachers is often closely related to their digital literacy. However, due to the lack of a clear career development path, many teachers feel confused about how to improve their digital literacy.

4.3 Difficulties in the Allocation and Utilization of Teaching Resources

In the background of digital reform, English teachers in ethnic colleges of west China are facing difficulties in allocating and utilizing teaching resources. The imbalance in the allocation of teaching resources is a prominent issue. Due to the geographical location, economic conditions, and educational resources limitations of ethnic colleges, teachers face certain difficulties in accessing high-quality digital teaching resources. This has led to some teachers being unable to fully utilize the abundant digital teaching resources in the curriculum design and the teaching process, thereby affecting the improvement of teaching quality. Although the types of digital teaching resources are becoming increasingly diverse, for English teachers in some ethnic colleges of west China, how to effectively utilize these resources for teaching remains a challenge. This requires teachers to have certain information technology skills and innovative thinking, be able to combine digital teaching resources with traditional teaching methods, and design creative and interactive teaching activities.

4.4 The Dilemmas of Updating Teaching Concepts and Methods

In English teaching, the dilemmas of updating

the teaching philosophy and methods of teachers in ethnic colleges in west China are particularly prominent. Traditional teaching models and concepts are deeply rooted and difficult to quickly adapt to the needs of digital teaching. Many college English teachers are accustomed to face-to-face teaching methods, emphasizing classroom interaction and student oral expression. However, the digital teaching environment requires teachers to have the ability to use digital tools for teaching design, organization and management, as well as the skills to communicate with students effectively through online platforms. Therefore, teachers need to abandon traditional teaching models and actively explore new methods that adapt to digital teaching. Teachers lack knowledge and skills in digital literacy, which limits their ability to excel in digital teaching. Although modern educational technology provides abundant resources and convenient tools for teaching, many college English teachers are not proficient in the application of these technologies. They may lack a deep understanding of digital teaching platforms and may not know how to effectively utilize these platforms for the design and management of teaching activities. Additionally, there may be gaps in the knowledge and skills of teachers in information technology, which limits their innovation and development in digital teaching. The working pressure and time constraints faced by teachers are also one of the challenges in updating digital teaching concepts and methods. College English teachers usually have to undertake heavy teaching tasks and research work, but time is tight. In this situation, they may not have enough time and energy to learn and master new teaching concepts and methods. So some teachers may hold a skeptical attitude towards digital teaching, believing that it will increase their workload rather than alleviate their work stress.

5. Strategies for Improving Digital Literacy of English Teachers in Ethnic Colleges of West China

5.1 Strengthen Digital Technology Training for Teachers

As the leaders and participants in the digital transformation of higher education, college

teachers should possess corresponding digital literacy to cope with the challenges of the digital era.^[4] For the reason of geographical, cultural, and resource limitations, college English teachers face some challenges in the application of digital technology. Strengthening digital technology training for teachers is one of the key strategies to enhance their digital literacy. First, teachers need to recognize that digital technology is not just a tool, but also a way of thinking. It requires teachers not only to master basic technical operations, but also to understand the logic and principles behind them. The training content should be upgraded from basic computer operation skills to in-depth data analysis and processing abilities, and expanded from simple teaching software usage to complex online teaching platform design and operation. Second, the training methods should also keep up with the times. Traditional face-to-face training may not meet the needs of all teachers, especially in remote ethnic colleges of west China. Hence, teachers can consider adopting a hybrid training approach, combining online and offline resources, to provide teachers with more learning opportunities and choices. At the same time, teachers can also utilize advanced technologies such as big data and artificial intelligence to achieve personalized and intelligent training, improving the efficiency and effectiveness of training. Third, a continuous learning and feedback mechanism should be established. The rapid development of digital technology requires teachers to constantly update and enhance their digital literacy. Teachers should not be satisfied with one-time training, but should establish a long-term learning community, encourage communication and cooperation among teachers, and share their experiences and achievements. Meanwhile, teachers should also regularly evaluate and provide feedback on their digital literacy in order to adjust training strategies and methods in a timely manner. Last, teachers need to incorporate the improvement of digital literacy into their career development system. Digital technology is not only a teaching tool, but also an important driving force for educational reform. Therefore, teachers should consider digital literacy as an important criterion for evaluating and selecting teachers, inspiring them to actively participate in the exploration and

practice of digital education.

5.2 Optimizing the Allocation of Digital Teaching Resources

In order to promote teaching innovation and improve the key factors of teaching quality, it is necessary to optimize the allocation of digital teaching resources for college English teachers. Firstly, it is necessary to establish a comprehensive digital teaching resource library. This resource library should include various types of teaching resources, such as electronic textbooks, online courses, multimedia teaching software, etc. Updating these resources regularly to keep them up-to-date with the latest teaching concepts and technologies. In addition, it is necessary to encourage teachers to independently create teaching resources to meet their personalized teaching needs. Secondly, it is necessary to provide professional training on the use of digital teaching resources. This training should include how to use various digital teaching tools, how to create and manage digital teaching resources, and how to evaluate the effectiveness of digital teaching. Through this kind of training, teachers can enhance their digital literacy and better utilize digital teaching resources for teaching. Thirdly, it is necessary to establish an effective mechanism for sharing digital teaching resources. This mechanism should ensure that all teachers have fair access to and use of digital teaching resources. To this end, teachers can establish an online digital teaching resource sharing platform, allowing them to share and download the teaching resources they need on this platform. At the same time, various activities such as teaching seminars and competitions are held to promote communication and cooperation among teachers. Finally, it is necessary to strengthen the evaluation and monitoring of digital teaching resources. Regularly evaluate the use of digital teaching resources by teachers to understand their level of digital literacy and teaching efficiency. Overall, optimizing the allocation of digital teaching resources is an important strategy to enhance the digital literacy of English teachers in ethnic colleges of west China. It can effectively solve the problems faced by teachers in digital teaching, thereby improving their teaching quality and efficiency.

5.3 Guiding Teachers to Transform Teaching Concepts

In the context of digital reform, improving the digital literacy of English teachers in ethnic colleges of west China has become an important task. To achieve this goal, it is first necessary to guide teachers to change their teaching philosophy. To enhance teachers' understanding of digitalization, on the one hand, it requires them to understand the important value of digital technology in national development and educational innovation and transformation; on the other hand, teachers are required to recognize the impact and challenges that the rapid development of digital technology brings to education and teaching. ^[5] Therefore, teachers need to shift from traditional teaching concepts to student-centered teaching concepts. At first, teachers need to recognize that digital teaching is not only a teaching tool, but also a change in teaching methods. It requires teachers to no longer be the transmitters of knowledge, but rather the guides and assistants of student learning. Teachers need to change traditional teaching methods and guide students to engage in self-directed and cooperative learning more. Second, teachers need to recognize that digital teaching provides more teaching resources and tools. Teachers need to utilize these resources and means to design and implement more diverse and diverse teaching activities. This can not only enhance students' learning interest and effectiveness, but also improve the teaching efficiency and quality of teachers. Third, teachers need to recognize that digital teaching also brings some challenges. For example, how to effectively manage and utilize digital teaching resources, how to ensure student network security, how to evaluate student learning outcomes, and so on. Teachers need to continuously learn and improve their digital literacy to meet these challenges. At last, teachers need to recognize that digital teaching is an important component of educational modernization. Teachers need to actively participate in and support the reform and development of digital teaching. This can not only improve the professional quality of teachers themselves, but also promote the overall development of school education. Only when teachers truly understand and accept the concepts and

methods of digital teaching can they effectively improve their digital literacy and better serve the learning and development of students.

5.4 Exploring Innovative Teaching Methods

In the English teaching of ethnic colleges of west China, the digital literacy of teachers is a key factor in promoting teaching innovation and improving teaching quality. Exploring innovative teaching methods to enhance teachers' digital literacy has become an important task at present. Empowering learners with digital technology, fully leveraging the role of technology in the teaching and learning process, innovating classroom teaching modes and methods, meeting the diverse learning needs of students, striving to cultivate their innovative and problem-solving abilities, and continuously improving their digital literacy level, helping students actively utilize digital technology for self-directed learning. [6] Digital literacy is not only the ability to master and use digital technology, but also a transformation of thinking patterns and teaching concepts. On this basis, teachers can try to introduce new teaching models such as project-based learning and flipped classroom to enhance their digital literacy in practice. Teachers can learn from the teaching mode of MOOCs and provide rich learning resources and flexible learning methods through online courses, micro courses, and other forms to help teachers improve their digital literacy. And teachers can also utilize technologies such as big data and artificial intelligence for personalized and precise teaching. For example, through the analysis of student learning data, teachers can understand their learning situation and needs, and develop personalized teaching plans. Through intelligent recommendation systems, teachers can recommend suitable learning resources and paths for students. All of these require teachers to have a certain level of digital literacy. Teachers need to establish effective mechanisms for teacher training and development, and provide sustained professional development support. This includes regular teacher training, teaching seminars, teaching observation and other activities, as well as policy support to encourage teachers to participate in educational research and teaching reform.

Through these methods, teachers can improve their digital literacy continuously and adapt to the needs of digital teaching better.

6. Conclusion

Under the interweaving influence of globalization and digitization, English teachers in ethnic colleges of west China are facing multiple challenges. On the one hand, they need to master and apply advanced digital technology to improve teaching quality and effectiveness; on the other hand, they also need to cultivate students' digital literacy to adapt to the increasingly digital social environment. However, due to various reasons such as resource constraints, difficulty in transforming educational concepts and applying technology, English teachers in ethnic colleges of west China face many difficulties in improving their digital literacy. Resource constraints are an important challenge. Although digital technology provides unlimited possibilities for teaching, ethnic colleges of west China often lack necessary hardware equipment and software platforms, which makes it difficult for teachers to fully utilize digital technology for teaching. In addition, due to the lack of funding and technical talent, it is also difficult for teachers to achieve sustained professional development and skill enhancement. The transformation of educational concepts is also a challenge. Many English teachers in ethnic colleges still adhere to traditional teaching methods and have a low acceptance of digital technology. They may worry that digital technology will weaken their teaching position, or believe that the use of digital technology will increase their workload. How to effectively integrate digital technology into teaching and make it a tool to improve the teaching efficiency, rather than a simple teaching aid, is also a major challenge. To address these challenges, teachers need to take effective measures. Firstly, the government needs to increase investment in ethnic colleges of west China, provide necessary hardware equipment and software platforms, and cultivate more technical talents. Secondly, teachers need to change traditional educational concepts and encourage them to actively accept and use digital technology. Finally, schools need to provide professional training and support to help teachers master the application skills of digital technology and

solve problems encountered in practical applications.

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