

The Paths for Cultivating Teachers' Digital Literacy from the Perspective of Education Digital Transformation

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ABSTRACT

In the context of the digital transformation of education, the digital literacy of teachers has become an important factor to measure the teachers' level. Therefore, in today's era, there is an urgent need to improve teachers' digital literacy. However, there are some gaps in the resource supplies and policy guarantees for the cultivation of teachers' digital literacy in different regions. Meanwhile, the relatively weak subject consciousness of teachers also restricts the cultivation of their digital literacy. Therefore, this paper discusses the realization paths of better cultivating teachers' digital literacy from three aspects: enhancing subject consciousness, carrying out systematic training and providing policy system guarantees.

KEYWORDS

Education digitization; Teachers' digital literacy; Cultivation paths

1 Introduction

The report of the 20th National Congress of the CPC emphasizes the need to promote the digitization of education and the establishment of the learning society with lifelong learning for all^[1]. Under the background of the digital transformation of education, the cultivation of teachers' digital literacy is of great importance. It has gradually become a basic standard to measure teachers' development while putting forward higher requirements for teachers' transformation of education, how to cultivate teachers' digital literacy and make teachers better adapt to the development needs of the times has become a hot topic in the current era.

2 The Realistic Dilemma of Teachers' Digital Literacy Cultivation under the Background of Education Digitization

With the advent of the digital era, China should seize the opportunity of the digital development of education, continuously improve the digital literacy of teachers, promote the transformation development of education model, and promote the continuous progress of education towards the high quality and level, so as to create a more open, inclusive and sustainable education ecological environment^[2]. However, due to the differences in the level of economic development in different regions, the cultivation of teachers' digital literacy is restricted to a certain extent by the relatively weak subject consciousness of teachers, lagging ideas, unbalanced supply of digital literacy

cultivation resources, and incomplete relevant cultivation mechanism.

2.1 Weak Subject Consciousness and Relatively Lagging Concept of Digital Literacy Cultivation

In recent years, with the rapid development of the Internet, science and technology have enabled the education field while making continuous progress. One of the factors restricting the cultivation of teachers' digital literacy is their weak subjective consciousness. Therefore, stimulating teachers' subjective consciousness is an important process for enabling teachers' digital literacy cultivation by science and technology^[3]. Influenced by the traditional single teaching mode, teachers have not realized the higher efficiency, more open and more intelligent teaching effect brought by the integration of digital means and education. For example, with the introduction of digitization into the classroom, technologies such as the intelligent blackboard and automatic grading of test papers have made the teaching process of teachers more efficient and convenient. However, in the concrete practice process, most teachers are weak in digital willingness, purposes and digital literacy, and are difficult to actively improve their teaching literacy, thus restricting the development of digital education. In addition, in many schools, teachers do not have a scientific and systematic understanding of improving their own digital literacy, and the relevant educational concepts are relatively backward. For example, some teachers are old-fashioned and reject the new digital teaching concept. Some teachers are unwilling to participate in such educational training and lack a sense of identity for the cultivation of digital literacy. Therefore, the weak subject consciousness and the backward concept of digital literacy cultivation of teachers are the main factors restricting the cultivation of teachers' digital quality.

2.2 Lack of Digital Knowledge and Imperfect Digital Literacy Cultivation System and Mechanism

The different existing states of literacy in different situations are knowledge or ability^[4]. Under the background of digital education, teachers in many schools have shown the problem of insufficient information technology knowledge reserve, which makes it difficult for digital knowledge to play its real effectiveness. For example, teachers do not know enough about the use of digital technology, and if the digital equipment equipped by the school fails, it will be difficult for teachers to troubleshoot and carry out normal lessons. Teachers also lack the ability to develop digital resources, and have the difficult to extract effective resources from massive Internet resources and convert them into digital information, which will lead to uneven quality of information screened by teachers, and make it difficult to fully leverage the advantages of digital teaching. In addition, in the school system, strategic planning flaws and inadequate evaluation criteria for nurturing teachers' digital literacy are increasingly apparent. On the one hand, although some schools have formulated strategic plans for the cultivation of teachers' digital literacy, there are problems of simplification and short term, and the cultivation of teachers' quality and literacy is not placed in a prominent position in the process of education digital reform. It makes teachers pay insufficient attention to the cultivation of digital literacy to a certain extent. On the other hand, the lack of specific evaluation indicators, complete supervision system and incentive mechanism will lead to imperfect management guarantee and application guarantee in the cultivation process of teachers' digital literacy, so as to affect teachers' enthusiasm to improve their own digital literacy.

2.3 Lack of Resource Security and Unbalanced Supply of Resources for the Cultivation

of Digital Literacy

Due to the influence of economic development levels, digital resource sources, academic exchange conditions and other factors, it is difficult for teachers to obtain teaching resources that meet their own development conditions according to their own learning conditions. Firstly, the development of regional digital literacy cultivation resources is unbalanced. From the overall situation that the economic development level of coastal areas is better than that of inland areas in China, there are differences in the educational resources possessed and obtained in different areas, and the teaching resources of urban schools are better than those of rural schools. Although cities have more educational resources, the uneven distribution of educational resources in some poor areas such as rural areas seriously affects the cultivation of local teachers' digital literacy, and makes it difficult for students to enjoy the convenience brought by digital education. It may become a stumbling block on the way to digital transformation of education, making it difficult to meet the need for digital literacy cultivation of teachers^[5]. Secondly, there are differences in the supply of resources in different schools. In the era of information development, the division of schools at all levels and types leads to a large gap in the acquisition of school resources. The resources obtained by some schools have great advantages in quality, quantity and various digital hardware facilities, while the constructions of education service platform and digital resource service level in some schools are relatively deficient, which makes the obtained digital literacy cultivation resources by teacher cannot support the continuous development and improvement of teachers.

3 Practice Paths of Teachers' Digital Literacy Cultivation Under the Background of Education Digitization

China's Ministry of Education attaches great importance to the digital development of education. As an important force to promote the digital transformation and development of education, teachers need to continuously improve their digital literacy and actively adapt to the development of the digital society. The cultivation of teachers' digital literacy is not a simple and fast process, but the result of teachers' own long-term knowledge accumulation and the combined effect of external resources, environment and other factors. Therefore, in order to improve the cultivation of teachers' digital literacy, it is necessary to continuously enhance teachers' subjective consciousness and carry out systematic training. At the same time, while improving teachers' own knowledge level, we should pay attention to the strong guarantee of external related policies.

3.1 Enhance the Subject Consciousness and the Value Cognition of Teachers' Digital Literacy Cultivation

In order to improve the digital literacy of teachers, we should firstly encourage teachers to break away from traditional teaching modes, innovate traditional education concepts, and enhance their own awareness of the value of digital education. First of all, it is necessary to enhance teachers' subjective consciousness and cultivate their digital teaching thinking. The enhancement of teachers' willingness to cultivate digital literacy is inseparable from teachers' subjective initiative, and it is necessary to help teachers change their own ideas subjectively and accept the concept of digital teaching. Schools can help teachers realize the importance of digital literacy cultivation through meetings, training, policy interpretation and other means, so as to break teachers' stereotyped cognition of digital literacy cultivation. Secondly, in order to better carry out digital teaching, it is necessary to continuously enhance teachers' sense of identity of digital teachers and the value cognition of digital literacy cultivation. For example, through the wide application of

digital technology, teachers can use digital classrooms, digital equipment and other technologies in the classroom to enhance the diversity and interaction of the classroom, and meet the individual needs of students while innovating teaching methods. In this way, teachers can see the development dividends brought by digital education in the process of improving teaching quality, so as to strengthen their own sense of identity and belonging to digital teachers.

3.2 Carry out Systematic Training and Improve the System and Mechanism for the Cultivation of Teachers' Digital Literacy

Traditional training methods are mostly the single top-down model, which is difficult to meet the individual needs of teachers^[6]. Therefore, it is necessary to improve the system and mechanism of teachers' digital literacy cultivation, thus promoting teachers' digital literacy cultivation to achieve a high level of improvement. Professional training is an effective means to improve teachers' digital literacy. Therefore, precise training should be carried out in schools to make full use of big data or artificial intelligence technology to accurately analyze the pain and difficulties encountered by each teacher in the process of cultivating digital literacy, so as to tailor training needs for each teacher. For example, for teachers who lack online education experience and cannot make good use of functions such as "in-class exercises" and "online spot checks", training in auxiliary procedures and usage guidelines can be provided, so as to solve the problem of teachers' digital literacy cultivation. In addition, the supervision and assessment system can be improved to check the whole process of teachers' digital literacy cultivation. On the one hand, the supervision and management mechanism should be implemented. Dynamic supervision should be carried out in the process of teachers' digital literacy cultivation, so as to urge the majority of teachers to take it seriously in their daily work, practice digital literacy cultivation down-to-earth and achieve real results. On the other hand, it is necessary to constantly improve the assessment mechanism and increase the intensity of assessment. The digital literacy of teachers should be included in the assessment standards of teachers' ability, and more comprehensive and scientific assessment standards should be formulated to ensure that the assessment results are consistent with the actual situation of teachers.

3.3 Provide Resource Guarantee and Ensure the Resource Supply for Teachers' Digital Literacy Cultivation

Nowadays, the cultivation of teachers' digital literacy is constantly advancing, and certain policy supports are needed to ensure the effective supply of resources. First of all, the government can combine the national strategy and the specific situation to do a good job of resource integration and work out a feasible plan conducive to promoting the cultivation of teacher literacy. The national or provincial education platform resources can help teachers have more opportunities to access digital teaching resources, and establish a co-construction and sharing of digital resources supply mechanism. Secondly, we should strengthen the reform of the resource supply for the cultivation of teachers' digital literacy. A full survey should be conducted among teachers to understand their different needs for digital resources, and complete database resources should be established for teachers to choose, so as to better provide high-quality, diversified and multi-level digital literacy cultivation resources for teachers. Finally, it is necessary to guide teachers to develop and manage digital resources. Schools should set up a professional team to train and guide teachers, and help teachers learn and master the creation, editing and use of various digital resources, so that teachers can fully improve their abilities to use digital resources by making micro-lessons, courseware, online learning modules and other ways.

4 Conclusion

Digital transformation is a major trend in the development of education in China. The cultivation of teachers' digital literacy is a concrete measure to respond positively to the digital transformation of education, and also a concrete manifestation of continuous development of education. In order to accelerate the cultivation of teachers' digital literacy and create a team of teachers with high-level digital teaching ability, it is necessary to provide practical directions for the cultivation of teachers' digital literacy from three aspects: enhancement of teachers' own value cognition, schools' systematic training and government's policy guarantee.

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