

Research on Digital Skills Improvement Strategies of Higher Education Economic and Management Teachers

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Abstract: *With the rapid development and popularization of information technology, digital skills have become one of the essential qualities of contemporary college students. As teachers of economics and management who train future economic and management talents, it is essential to enhance their digital skills. The purpose of this paper is to discuss the improvement of digital skills of economic and management teachers in higher education, in order to improve teachers' digital literacy and skill level, and then improve teaching quality and effect.*

Keywords: *Economics and management teachers; Digital skills; Higher education*

1. Introduction

With the rapid development of technologies such as the Internet, big data and artificial intelligence, human beings have entered the digital age, and in the process, people's lifestyle has undergone great changes. In today's society, digital technology has penetrated into people's life, work, study and other aspects. As the cradle of future economic and management talents, the professional teachers of higher education management must constantly improve their digital skills to adapt to the development of The Times and the needs of education. Promoting the digitization of education is the key to achieving a strong education country. In the report of the Party's 20th National Congress, the strategic deployment of "promoting the digitalization of education" was proposed. The Ministry of Education clearly proposed in the "Education Informatization 2.0 Action Plan" that it is necessary to comprehensively improve the digital level of teachers and promote the deep combination of informatization and education and teaching. At the same time, the Ministry of Education also proposed to build a high-quality, professional and innovative teacher team to provide strong support for promoting education modernization. In this context, higher education economic and management teachers must keep up with the policy requirements and enhance their digital skills to adapt to the development of education informatization.

At present, the research on the improvement of digital skills of economic and management teachers in higher education is relatively limited, and the existing research mainly focuses on the importance, necessity and improvement strategies of digital skills. However, there are some shortcomings in these studies, such as the lack of in-depth research on the specific application and practice of digital skills, and the lack of research on the problems and difficulties encountered in the process of digital skills improvement. Therefore, the purpose of this study is to make up for the shortcomings of the existing research, and to explore the methods and approaches to improve the digital skills of higher education economic and management teachers.

2. Research review

Youram Eshet-Alkalai first proposed the conceptual model of "digital literacy", which argues that digital literacy is a necessary survival skill for teachers in the digital age^[1]. The digital literacy of teachers in this model means that they can properly utilize digital technology to acquire, process, use, manage and evaluate digital information and resources, discover, analyze and solve educational and teaching problems, and have the awareness, ability and responsibility to optimize, innovate and change educational and teaching activities. At present, the research on teachers' digital skills in the core academic papers mainly involves the following aspects:

From the perspective of constructing teachers' digital competency model, this paper probes into the path of improving digital skills. From the perspective of high-quality development, Shi Xiaoyan and Liu Guixiang (2023) describe the digital ability of higher vocational teachers. On this basis, from the three aspects of "digital basic quality", "digital application ability" and "digital development ability", they put forward the path to improve the digital competence of higher vocational teachers under the background of high-quality development. First of all, they emphasize that IT training system should be built with learning as the guide. Secondly, to develop teachers' digital skills based on application; Finally, the digitalization level of teachers should be improved with the orientation of development^[2]. Xu Qianqian and Wu Xueping (2023) established a general model of digital competence of teachers in colleges and universities through interviews with 20 vocational teachers. The model covers three dimensions of basic digital competency, digital teaching competency and digital learning competency, and ten indicators, and puts forward suggestions from two aspects of teachers' personal initiative and external support. Among them, they proposed measures such as developing digital teaching resources, strengthening digital collaboration and innovation among teachers^[3]. Xu Qianqian and Wu Xueping (2023) established a general model of digital competence of teachers in colleges and universities through interviews with 20 vocational teachers. The model covers three dimensions of basic digital competency, digital teaching competency and digital learning competency, and ten indicators, and puts forward suggestions from two aspects of teachers' personal initiative and external support. Among them, they proposed measures such as developing digital teaching resources, strengthening digital collaboration and innovation among teachers^[4].

This paper puts forward some suggestions on improving teachers' digital skills from the perspective of teachers' role transformation and self-development. The role of higher education teachers is changing in the digital age, and teachers need to carry out role transformation and self-development. This research mainly involves the following aspects: (1) Teacher role transformation: In the digital age, teachers have changed from traditional knowledge transmitters to learning guides and facilitators of student development^[5]. (2) Self-development strategies: Teachers need to develop self-development strategies to adapt to the digital transformation of roles and education. This includes continually updating knowledge and skills, attending professional development courses and seminars, collaborating with peers, and reflecting on teaching practices^[6]. (3) Professional development community construction: Teachers can establish a professional development community through online or offline professional forums, teacher exchange meetings and other ways to share resources and experience, learn from and support each other, and develop together^[7].

In terms of digital skills training and practice, researchers focus on how to improve teachers' digital skills through concrete practical measures. In the digital age, the rapid development of information technology and the continuous update of teaching methods have put forward higher requirements for college teachers, but at the same time, it also brings opportunities, such as obtaining more teaching resources and evaluating students' learning effects more effectively. Andreas Schleicher (2023) proposed that the transformation of teachers under the background of educational innovation should include two aspects: ensuring working conditions and improving professional level^[8]. In the process of studying the digital transformation of teaching, Luo Guo (2023) deeply analyzed the realistic dilemmas faced by teachers at multiple levels such as concept, ability, activity, system, technology and effectiveness. He stressed that while focusing on teachers, it is also necessary to pay attention to the promotion of digital leadership of principals^[9]. In contrast, Xiang Juhu and Chen Peng (2023), based on the phenomenology of education, proposed a solution to the problem of digital transformation of teachers from the perspectives of ontology, methodology, practice and value theory. Specifically, paths such as improving the top-level design, returning to the teacher body, and shaping digital personality are considered to lead the digital transformation of the teacher team, which is conducive to improving the digital transformation competence of the teacher team and cultivating the digital transformation literacy^[10]. In general, existing studies mainly focus on the digital skills of teachers in primary and secondary schools and vocational colleges, but little attention is paid to the improvement of digital skills of economic and management teachers in colleges and universities.

3. It is necessary for university management teachers to have digital skills

3.1. Digital skills are conducive to adapting to changes in the industry and transforming teaching methods

Teachers with digital skills can better understand industry trends, update teaching content in a

timely manner, and enable students to better adapt to changes in the workplace. At the same time, digital skills can help teachers prepare teaching materials more efficiently, conduct teaching evaluation and feedback, and improve the efficiency of teaching administration. Making teaching methods more flexible and diversified, teachers can use digital tools and online resources to support teaching activities, including online course design, virtual experiments, digital libraries, etc., which helps to improve teaching effectiveness and student participation.

3.2. Digital skills can improve the quality and effect of teaching and cultivate students' digital literacy

Digital tools and resources provide teachers with more intuitive and image teaching methods, so that students can better understand and master the relevant knowledge and skills of management. At the same time, digital tools and resources can also provide more cases and practical opportunities, so that students can better apply theoretical knowledge to practice and improve learning results. Digital skills are an indispensable part of today's society, and cultivating students' digital literacy is one of the important goals of education. In the field of economics and management, a large amount of data and information need to be processed and analyzed. Teachers with digital skills are more likely to make effective use of data analysis tools to help students understand and apply relevant knowledge. Through the example of teachers, students are more likely to contact and learn digital skills, cultivate students' information literacy, and improve teachers' competitiveness in future careers.

3.3. Digital skills can promote the development of scientific research and enhance social service capabilities

University management teachers need to carry out scientific research to study the new problems and development trends in the field of economics and management. Digital tools and technologies offer many advantages, including improved data collection, analysis, and visualization. Digital tools and resources can provide more efficient and accurate information collection and analysis methods to help teachers better serve the society, such as providing consultation for enterprises and formulating policies for the government. At the same time, they can also allow students to participate in social practice and enhance teachers' social responsibility and practical ability.

3.4. Digital skills are conducive to cross-platform cooperation between teachers and the outside world and increase professional development opportunities

Digital skills enable faculty to collaborate more effectively with colleagues from different institutions and disciplines, and online platforms and communication tools facilitate seamless collaboration, enabling researchers to gather diverse perspectives and expertise. This interdisciplinary approach facilitates the formation of innovative thinking and allows new research directions to be explored, ultimately enriching the academic contributions of business and management faculty. As the demand for online education continues to grow, teachers with digital skills equipped to participate in e-learning, distance learning and blended learning environments are more capable and more adaptable to changing teaching needs, positioning themselves to remain competitive in the academic job market.

4. The path to improve teachers' digital skills

4.1. Teachers are self-empowered to learn and master digital technologies and tools

Under the background of digital transformation, teachers must update their knowledge and ability in time to meet the requirements of the information age. First, higher education economics and management teachers need to learn digital technologies and tools, including cloud computing, big data, artificial intelligence, blockchain, etc., as well as commonly used digital tools and software, such as Excel, SPSS, Python, etc. Second, teachers should attend academic conferences and seminars to explore new technologies and applications. Teachers should actively participate in training courses and seminars in the field of digital skills and management, and timely pay attention to new technologies and applications in the field of management, such as blockchain, artificial intelligence, etc., in order to constantly update their knowledge and skills and apply them to teaching. Third, higher education economic and management teachers need to strengthen school-enterprise cooperation to improve their digital scientific research ability. By participating in digital transformation projects, providing digital

management consulting and other ways to collaborate with enterprises, keep abreast of company and industry trends, and improve their digital skills. Fourth, teachers should carry out digital scientific research. Through the use of big data analysis methods to study economic and management issues, the development of digital management software and systems and other projects, they can master more digital technologies and methods, improve their digital scientific research capabilities.

4.2. Build a digital learning community to enhance teachers' digital skills

Build a digital learning community and create academic communities and collaborative platforms to facilitate the sharing of digital teaching experiences, resources and best practices among teachers to enable each other to learn and grow. First of all, based on the concept of co-construction and sharing of curriculum groups, schools should focus on the construction of high-level professional groups, take curriculum groups as units, select a group of full-time and part-time teachers with new vocational education concepts, rich teaching experience and good digital literacy, and set up a teaching resource development team involving teachers and enterprise personnel. Through establishing the teaching mechanism of collective planning, centralized lesson preparation, division of responsibilities and cooperative lesson construction, the development of team building is promoted. Secondly, a collaborative training mechanism for teachers should be established. Through the linkage between teachers' work departments and educational affairs, quality control, information and other functional departments, the training aimed at improving teachers' digital literacy is carried out. The training content can cover online course design, network teaching skills, multimedia production, as well as digital teaching resource construction ability, digital teaching design ability, online and offline mixed teaching implementation ability. Schools should assess teachers to "build a course resource, write a course teaching plan and build an online course", so as to further consolidate teachers' resources and online course construction ability. Finally, actively bring in external experts and resources. Schools can invite experts in the field of digital teaching to give lectures and training, and introduce high-quality external resources to enrich teachers' vision of digital teaching. Through a series of activities such as digital teaching special training, open class demonstration class observation, online course teaching forum salon, etc., teachers' ability to implement digital teaching is comprehensively improved.

4.3. Build a digital teaching resource application platform and consolidate the digital teaching supporting environment

School management can develop policies to encourage and support digital instruction, while promoting institutional changes to better integrate and support digital instruction. First, schools should encourage teachers to innovate in digital practice, and provide corresponding support and reward mechanisms to encourage more teachers to try new digital teaching methods. We should use modern information technology to transform traditional majors, strengthen the construction of digital conditions, and form a digital teaching environment. It is also necessary to support the creation of digital teaching resource application platforms, allocate special funds every year, upgrade teaching resource development service methods, and ensure the high-quality completion of resource construction tasks such as micro-video recording, simulation and animation production. Secondly, schools should increase the number of smart classrooms, improve teaching equipment, and promote the electronic and network teaching process, so that learning can be carried out at all times and everywhere. Finally, schools should set up digital technical support teams to provide real-time technical support and guidance for teachers to solve the problems encountered by teachers in digital teaching. Through these measures, schools can promote the implementation and development of digital teaching and improve the quality and effect of teaching.

5. Conclusion

The application of digital technology in higher education has been more and more extensive, such as artificial intelligence, big data, cloud computing, etc. These technologies have brought more opportunities and challenges to higher education. This study puts forward the methods and approaches to improve the digital skills of economic and management teachers in higher education from the following four aspects: teachers' self-empowering learning, mastering digital technology and tools; Build a digital learning community to enhance teachers' digital skills; Build a digital teaching resource application platform and consolidate the digital teaching supporting environment. These methods aim to provide theoretical and practical guidance for improving teachers' teaching level and teaching

quality.

Future research can further focus on the application and development trend of new technologies in higher education, and also explore how to better support the professional development needs of teachers to promote the digital transformation and development of higher education from the perspective of policy makers and educational institutions. In addition, research can also focus on how to combine the individual development needs of teachers with the needs of schools or society to achieve common development.

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