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Strategies for Improving Teaching Quality of Higher Academic Continuing Education in the Digital Age

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Abstract: The rapid development of digital technology has brought revolutionary changes to our higher academic continuing education and put forward higher requirements for its teaching quality. In the context of the digital age, it is necessary for universities to systematically understand the problems existing in the teaching quality of higher academic continuing education. Currently, higher academic continuing education faces issues such as insufficient digitalization of teaching resources, lagging innovation in teaching models, a lack of teachers' digital teaching capabilities, a low level of informatization in teaching management, and imperfect quality assurance systems. Furthermore, universities can from five dimensions—construction of teaching resources, innovation of teaching models, improvement of teachers' capabilities, optimization of teaching management, and improvement of quality assurance systems — this paper proposes strategies for improving the teaching quality of higher academic continuing education, providing theoretical support and practical guidance for promoting the high-quality development of higher academic continuing education in the digital age.

1. Introduction

With the in-depth development of digital technologies such as big data and artificial intelligence, the field of education is transforming traditional models into digital ones. As an essential part of the lifelong education system, higher academic continuing education undertakes the important mission of meeting the diverse learning needs of social members and improving national quality.[1] The digital age offers a new approach to addressing challenges such as insufficient teaching resources, limited teacher-student interaction, and difficulties in quality monitoring in traditional higher academic continuing education. Making full use of the advantages of digital technology can provide specific guidance for universities and educational institutions to implement digital teaching reforms, help them address practical teaching challenges, enhance the quality of talent training, and better serve the development of the national lifelong education system and a learning society. However, it also faces practical challenges such as inadequate technology integration and insufficient application. Utilizing digital means to enhance teaching quality has become a pressing issue that requires attention.

2. The Impact of the Digital Age on Higher Academic Continuing Education

The teaching model has transformed from "traditional face-to-face teaching" to "blended teaching". Digital technology has broken the limitations of time and space, and the traditional single face-to-face teaching model has been gradually replaced by a "online + offline" blended teaching approach. Online platforms facilitate knowledge transmission, while offline classrooms focus on interaction and practical guidance, achieving complementary advantages and enhancing teaching efficiency. The learning method has shifted from "passive acceptance" to "independent inquiry". The richness and accessibility of digital resources enable learners to independently choose learning content and arrange learning time according to their own needs, significantly enhancing learning initiative and autonomy, and forming an "independent inquiry" learning model. The management method has upgraded from "experience-based management" to "data-driven management". With big data technology, teaching management departments can collect real-time data on learners' learning behaviors and teachers' teaching processes, enabling precise monitoring of teaching quality and the scientific formulation of management decisions through data analysis. This, in turn, improves management efficiency and effectiveness.

3. Problems Existing in the Teaching Quality of Higher Academic Continuing Education in the Digital Age

3.1 The digital construction of teaching resources is lagging behind

Firstly, the quality of resources is uneven; some resources are only electronic versions of traditional textbooks, lacking interactivity and pertinence. Secondly, resource updates are not timely, making it challenging to keep up with industry technological development and cutting-edge disciplinary trends. Thirdly, the resource-sharing mechanism is imperfect, with resource barriers between universities and between universities and enterprises, resulting in serious redundant construction.

3.2 There is insufficient innovation in teaching models

Most universities still remain at the level of "technology substitution" and fail to achieve in-depth integration of technology and teaching.[2] In blended teaching, online and offline content lacks an organic connection. Personalized teaching is challenging to implement, making it difficult to provide precise teaching services tailored to learners' individual learning levels and needs.

3.3 Teachers lack digital teaching capabilities

There is a "digital divide" among the teaching staff: middle-aged and elderly teachers have limited technical application capabilities, while young teachers lack digital teaching design skills. At the same time, universities lack a systematic teacher training system and effective incentive mechanisms, resulting in low enthusiasm among teachers to participate in digital teaching reforms.

3.4 The informatization level of teaching management is low

The functions of teaching management information systems are imperfect, mostly scattered subsystems with non-interoperable and non-sharable data. Management methods are still dominated by manual work, lacking effective utilization of big data, which makes it difficult to achieve real-time monitoring and precise management of the teaching process.

3.5 The quality assurance system is not adapted to digital needs

The traditional quality evaluation system focuses on result evaluation, ignoring process evaluation. Evaluation indicators are single, focusing on the degree of knowledge mastery, and lacking evaluation of digital learning capabilities, interactive collaboration capabilities, and other dimensions. Quality monitoring often lacks technical support, making it challenging to achieve comprehensive and full-process monitoring.

4. Strategies for Improving the Teaching Quality of Higher Academic Continuing Education in the Digital Age

4.1 Optimize the Construction of Digital Teaching Resources

Universities should clarify resource construction standards. Universities need to formulate the "Standards for the Construction of Digital Teaching Resources for Higher Academic Continuing Education", specifying the content requirements, technical specifications, and presentation forms of resources. Resource content should be closely combined with industry needs and disciplinary frontiers, focusing on practicality and pertinence. [3] Presentation forms should be diversified, integrating videos, animations, interactive exercises, and other elements to enhance the interest and interactivity of resources. Universities should construct a diversified resource development system. Universities may adopt a resource development model of "university-led, university-enterprise collaboration, and teacher-student participation". Universities are responsible for the overall planning and quality control of resources. Enterprises participate in the development of practical resources, providing real industry cases and technical support. Universities encourage teachers and learners to participate in resource construction, and enrich the resource library by collecting high-quality teaching cases and learning achievements. Universities need to establish a resource co-construction and sharing mechanism. Universities should develop a national digital resource-sharing platform for higher academic continuing education to break down resource barriers between universities. Universities can establish a resource evaluation and incentive mechanism to authenticate and promote high-quality resources, encourage universities to share these resources, and prevent redundant construction. At the same time, universities should introduce international high-quality digital resources to enrich the resource supply.

4.2 Innovate Digital Teaching Models

Universities should deepen the reform of blended teaching. Universities need to construct a blended teaching model of "online knowledge transmission + offline capability training". The online link utilizes live broadcasting, recorded content, MOOCs, and other formats to convey basic knowledge in an efficient manner. The offline link enhances knowledge application and capability training through case analysis, group discussions, practical operations, and other forms of learning. Universities need to establish a connection mechanism between online and offline teaching content to ensure the unity of teaching objectives. Universities need to implement personalized teaching. Relying on artificial intelligence and big data technology, Universities need to build a personalized teaching system. By analyzing data such as learners' learning behaviors, basic levels, and learning needs, we generate personalized learning portraits and recommend suitable learning resources and learning paths for each learner. Universities should adopt adaptive learning technology to dynamically adjust teaching content and difficulty according to learners' learning progress and mastery levels, thereby realizing "teaching students in accordance with their aptitude." Universities need to create immersive teaching scenarios. Universities need to use virtual simulation, VR/AR,

and other technologies to build immersive teaching scenarios.[4] Through scenario-based teaching, universities can enhance the authenticity and interestingness of learning, and improve learning effects.

4.3 Improve Teachers' Digital Teaching Capabilities

Universities need to construct a systematic training system. Universities need to establish a hierarchical and classified training system of "basic capabilities + professional skills + comprehensive application". Basic capability training focuses on the basic application of digital tools. Professional skill training focuses on core capabilities, including digital teaching design, online interaction skills, and data analysis.[5] Comprehensive application training enhances teachers' comprehensive application capabilities through teaching practices, case discussions, and other forms of instruction. Universities need to adopt "online + offline" and "theory + practice" training methods to improve training effects. Universities should establish incentive and evaluation mechanisms. Universities can incorporate digital teaching capabilities into the teacher assessment and evaluation system, linking them with professional title evaluation, selection of excellent teachers, performance distribution, etc., to encourage teachers to take the initiative to improve their digital teaching capabilities. Universities can establish a development file of teachers' digital teaching capabilities to track and record teachers' growth process. Universities need to build an exchange and development platform. Universities may establish digital teaching innovation teams to encourage teachers to conduct research on teaching and engage in practical exploration. Universities may establish a "mentorship" mechanism to leverage the technical advantages of young teachers and the teaching experience of middle-aged and elderly teachers, and promote the overall improvement of the teaching staff's capabilities.

4.4 Strengthen the Informatization Construction of Teaching Management

Universities should construct an integrated management information system. Universities need to integrate existing scattered subsystems to build a digital management information system integrating teaching, learning, management, and services. The system should cover core functions such as resource management, teaching arrangement, learning tracking, assessment and evaluation, and problem feedback to achieve data intercommunication and information sharing. Universities may promote data-driven, precise management. Universities need to establish a comprehensive data collection and analysis mechanism to gather various data throughout the teaching process, including learners' learning behavior data, teachers' teaching process data, and data on the usage of teaching resources. Universities need to use big data analysis technology to conduct in-depth mining of data, providing data support for teaching quality monitoring, teaching reform decisions, and personalized services.[6] Universities need to improve the intelligence level of management services. Universities may introduce artificial intelligence technology to realize the intelligence of management services. Universities should develop an intelligent Q&A system to provide learners with real-time, accurate answers to their questions. Universities can try to utilize an intelligent early warning system to remind and intervene with learners who have delayed learning progress and abnormal grades. Through an intelligent course scheduling system may optimize the allocation of teaching resources and improve course scheduling efficiency.

4.5 Improve the Digital Teaching Quality Assurance System

Universities should construct a diversified evaluation system. Universities need to establish a diversified evaluation system combining "process evaluation + result evaluation" and "quantitative

evaluation + qualitative evaluation". Process evaluation focuses on learners' online learning duration, interactive participation, homework completion quality, and other relevant factors. Result evaluation focuses on knowledge mastery, practical ability, comprehensive quality, and other relevant factors. The evaluation subjects should be diversified, including teachers, learners, enterprises, and industry experts, to ensure the objectivity and comprehensiveness of the evaluation results. Universities should establish a full-process quality monitoring mechanism. Relying on the digital management platform, universities establish a full-process quality monitoring mechanism covering "resource construction - teaching implementation - learning evaluation - feedback and improvement". Universities can regularly review and update teaching resources to ensure their quality. Universities can conduct real-time monitoring of the teaching process to discover and solve problems in teaching promptly. Universities can conduct an in-depth analysis of learning evaluation results to provide a basis for teaching improvement. Universities may establish a quality monitoring and early warning mechanism to issue prompt warnings for links with quality issues. Universities need to improve the continuous improvement mechanism. Universities should establish a teaching quality feedback platform to smooth the feedback channels for learners, teachers, enterprises, and other subjects. Universities can regularly carry out teaching quality evaluations and formulate targeted improvement measures based on evaluation results and feedback opinions.

5. Conclusions

The rapid development of digital technology has injected new momentum into improving the teaching quality of higher academic continuing education in universities. Particularly in five key aspects—construction of teaching resources, innovation of teaching models, enhancement of teachers' capabilities, optimization of teaching management, and improvement of quality assurance systems—universities have effectively proposed targeted strategies to upgrade the teaching quality of higher academic continuing education. These efforts provide theoretical support and practical guidance for promoting the high-quality development of higher academic continuing education in universities in the digital era.

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References

[1] Wu Feng. The Contribution of Higher Academic Continuing Education to Economic Growth Rate: An Empirical Study on Building a Powerful Education Nation[J]. China Distance Education, 2025, 45(08): 116-128.
[2] Liu Zhihong, Liu Yi, Li Ronghua. The Era Characteristics, Practical Dilemmas and Implementation Paths of Higher Academic Continuing Education Governance[J]. Adult Education, 2025, 45(01): 1-9.
[3] Zhou Chao, Dai Qunsen, Wang Bingzhong. Quality Improvement Paths of University Continuing Education in the Digital Age[J]. Continuing Education Research, 2025, (01): 6-9.
[4] Mao Weihua, Wu Yaqian. The Application, Risks and Challenges of ChatGPT in Higher Academic Continuing Education[J]. Jiangsu Higher Education, 2024, (04): 48-53.
[5] Yin Yiqi, Guo Wenbin, Liu Yanqi. The Inherent Logic, Practical Orientation and Action Strategies of High-Quality Development of Higher Academic Continuing Education[J]. Education and Vocation, 2024, (03): 83-90.
[6] Li Lin. The Value and Path of Big Data Empowering Higher Academic Continuing Education[J]. Journal of Hebei University (Philosophy and Social Sciences Edition), 2022, 47(06): 110-116.