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# Research on the Integration of Artificial Intelligence into Higher Vocational Accounting Teaching from the Perspective of Teachers' Application Ability

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**Abstract:** With the continuous penetration of artificial intelligence technology, educational informatization has gradually evolved towards educational artificial intelligence. This trend has brought new opportunities and challenges to higher vocational education and teaching. From the perspective of teachers' application ability, teachers of higher vocational accounting majors should focus on improving their intelligence literacy, transforming their roles and functions, effectively adapting to the changes in teaching in the intelligent era, and enhancing teaching effectiveness. In this regard, this paper conducts research on the integration of artificial intelligence into higher vocational accounting teaching from the perspective of teachers' application ability, analyzes the current situation and challenges of integrating artificial intelligence into higher vocational accounting teaching, and proposes targeted optimization countermeasures, aiming to improve teaching quality and help students meet the needs of the intelligent development of the accounting industry.

**Keywords:** Teachers' application ability; Artificial intelligence; Higher vocational accounting; Teaching

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## 1. Introduction

The release of the Notice of the General Office of the Ministry of Education on Carrying out Pilot Work of Artificial Intelligence Boosting the Construction of Teachers' Teams (Teacher's Office [2018] No. 7) emphasizes the important value of artificial intelligence in promoting the construction of teachers' teams. As an important field for cultivating future accounting professionals, integrating artificial intelligence into higher vocational accounting teaching is an inevitable trend to adapt to the development of the times [1]. Teachers, as organizers and guides of teaching activities, their ability to apply artificial intelligence is directly related to the effectiveness of teaching reform [2]. From the perspective of teachers' application ability, there are still many problems in the

application of artificial intelligence in higher vocational accounting teaching. Conducting in-depth research in this field, analyzing the current situation, addressing challenges, and exploring effective countermeasures are of great practical significance for improving the quality of higher vocational accounting teaching and cultivating high-quality accounting talents who meet the needs of the new era.

## 2. Current situation of integrating artificial intelligence into accounting teaching from the perspective of teachers' application ability

### 2.1. Lack of artificial intelligence knowledge

At present, some teachers have insufficient knowledge and mastery of artificial intelligence (AI), which limits the application value of this technology in teaching. Some teachers lack an in-depth understanding of AI theoretical knowledge, making it difficult to integrate cutting-edge technologies such as machine learning and big data analysis into teaching content, and are unable to expose students to the latest achievements in the intelligent development of the accounting industry. Some teachers also have insufficient application of AI teaching tools, failing to provide students with personalized learning support and precise teaching feedback.

### 2.2. Lack of ability to integrate relevant teaching resources

For the time being, some accounting teachers have deficiencies in the integration of teaching resources. When facing a large amount of teaching materials, they have difficulty in effective screening and integration, and are unable to build a teaching resource system that meets the teaching objectives and students' needs. For example, the National Vocational Education Accounting Information Management Professional Teaching Resource Database contains rich teaching resources, but some teachers fail to make full use of it and cannot combine it with the internal resources of the school, resulting in a waste of teaching resources. When integrating industry resources, some teachers lack in-depth cooperation with enterprises, making the teaching content divorced from the actual work scenarios.

### 2.3. Insufficient integration of teaching platforms and offline teaching

With the development of information - based teaching, various teaching platforms, such as the Chaoxing Xuexitong platform, have emerged. However, some teachers fail to effectively utilize these platforms. The integration of online and offline activities is insufficient, and the two are independent of each other, unable to form an effective teaching loop. In addition, the functions of some teaching platforms are rather complex and do not match actual teaching needs. Teachers find it difficult to use them to design content that meets teaching requirements, and students have a low acceptance level, which hinders the effective integration of teaching platforms and offline teaching.

## 3. Challenges of integrating artificial intelligence into higher vocational accounting teaching from the perspective of teachers' application ability

### 3.1. Changes in teaching methods and means

The development of artificial intelligence technology has driven profound changes in accounting teaching models and can provide teachers with more abundant and timely subject information [3]. Taking the field of language learning as an example, artificial intelligence can achieve multilingual interaction, personalized tutoring, and

automatic assessment through technologies such as speech recognition, natural language processing, and machine translation, promoting the innovation of language learning theories and methods [4]. In accounting teaching, the application of artificial intelligence technologies such as intelligent financial software and big data analysis tools has transformed traditional teaching methods. Teachers can use these technologies to conduct virtual simulation teaching, intelligent tutoring, and precise evaluation. This change places high demands on teachers' technical application abilities. However, some teachers are not proficient enough in applying new technologies, making it difficult for them to give full play to their advantages and affecting teaching effectiveness [5].

### 3.2. Changes in teachers' roles and responsibilities

The application of artificial intelligence technology has also led to significant changes in teachers' roles and responsibilities, prompting teachers to transform from mere knowledge disseminators to those who organically integrate "teaching" and "education", and from single-disciplinary knowledge structures to interdisciplinary ones. Teachers are no longer just knowledge transmitters but also need to become guides, organizers, and facilitators of students' learning, cultivating students' autonomous learning abilities, innovative thinking, and practical abilities [6]. This requires teachers to possess interdisciplinary knowledge, information-based teaching abilities, and good communication and collaboration skills [7]. Currently, however, the professional qualities and teaching abilities of some teachers are insufficient to meet these new requirements, and they cannot effectively guide students to adapt to these changes during the teaching process.

### 3.3. Changes in students' learning situations and expectations

The continuous popularization of artificial intelligence tools has prompted changes in students' learning conditions and expectations. On the one hand, with the popularization of the Internet, students' channels for acquiring information and knowledge have become increasingly diverse. They are eager to understand the latest industry trends and have mastered more in-depth and extensive knowledge [8]. On the other hand, as "digital natives" of the Internet, post-2000 college students are highly dependent on mobile devices such as smartphones and are accustomed to convenient and personalized learning methods. This requires teachers to use artificial intelligence tools to timely deliver the latest industry information to students in the teaching process and attract students' classroom attention through diversified teaching methods and means. However, at present, some teachers have insufficient understanding of students' new characteristics and new needs, and their teaching contents and methods lack innovation, making it difficult to stimulate students' learning interest.

## 4. Countermeasures for integrating artificial intelligence into accounting teaching from the perspective of teachers' application ability

### 4.1. Offering artificial intelligence training courses for teachers to improve their digital literacy

Facing the challenges brought by the integration of artificial intelligence into teaching, higher vocational colleges should focus on offering artificial intelligence training courses for teachers to improve their digital literacy, enabling teachers to master various accounting-related digital devices and online platforms, and promoting the digital transformation of professional education [9]. In terms of setting the content of training courses, schools should ensure their systematicness and pertinence, covering basic theories of artificial intelligence, cutting-edge technologies, and their practical applications in accounting teaching. For basic theory teaching, schools

can popularize the basic principles of artificial intelligence technologies, such as machine learning and deep learning, to teachers, helping them understand the application logic of artificial intelligence in the accounting field. For cutting-edge technologies, schools can introduce emerging tools such as intelligent financial robots and financial big data analysis platforms to broaden teachers' technical horizons. For practical applications, schools can carry out case-based teaching around accounting teaching scenarios, such as financial statement analysis and accounting processing, to help teachers master the methods and techniques of integrating artificial intelligence technologies into teaching. In terms of training methods, schools can adopt a blended training mode combining online and offline approaches [10]. For the online part, schools can build an artificial intelligence learning platform, providing rich learning resources, including course videos, case libraries, etc., to facilitate teachers' autonomous learning anytime and anywhere. The platform can be used to conduct interactive activities such as online discussions and Q&A sessions to promote communication and learning among teachers. For the offline part, schools should regularly organize intensive training sessions, inviting experts, scholars, and corporate technicians to give on-site lectures and practical guidance. Through face-to-face communication, teachers' problems encountered during the learning process can be solved. In terms of practical applications, schools should encourage teachers to consolidate the knowledge they have learned and improve their application abilities through practice. Teachers can be arranged to participate in accounting teaching projects based on artificial intelligence technologies, such as developing intelligent teaching courseware and designing virtual simulation experiments, to enhance teachers' transformation abilities and accumulate rich teaching experience [11].

## 4.2. Establishing a teachers' teaching community to promote teaching experience exchange

In the process of promoting artificial intelligence-based teaching, schools can establish a teachers' teaching community and build a regular communication platform to facilitate the exchange of teaching experiences, help teachers quickly adapt to information technology, and enhance their teaching application capabilities. First, focus on constructing the teaching community. Schools should widely recruit accounting teachers and invite participation from multiple parties, including corporate accounting experts and educational technology experts, to create a collaborative communication environment with diverse stakeholders. By organizing offline seminars and workshops, teachers can gather together to conduct in-depth discussions on the application of artificial intelligence in accounting teaching. For example, holding special seminar meetings with topics such as the application difficulties of intelligent financial software in teaching and the construction of an online-offline integrated teaching model can encourage teachers to share their experiences and lessons learned in teaching practice and jointly explore solutions to problems [12]. Second, build an online teaching experience sharing platform. Schools can establish an online sharing platform and set up a dedicated section for artificial intelligence accounting teaching, prompting teachers to upload teaching cases, teaching reflections, etc. to the platform for other teachers to learn from. By leveraging the communication and instant messaging functions of the platform, teachers are encouraged to initiate discussions at any time, creating a continuously active communication atmosphere. Finally, establish an incentive mechanism for the teaching community. Schools should establish an incentive mechanism. For instance, teachers who actively share high-quality teaching experiences and propose innovative teaching ideas during exchanges should be commended and rewarded, such as being issued honorary certificates or provided with opportunities for further study abroad, to enhance teachers' enthusiasm for participating in exchanges.

## 4.3. Constructing a teachers' professional development system to promote their sustainable development

The advancement of educational artificial intelligence has put forward high-level skill requirements for the teaching staff of higher vocational colleges. Schools should focus on constructing a sound teachers' professional development system to ensure teachers' professional growth and promote their sustainable development. First, promote teaching through competitions. Schools can incorporate skill competitions into teachers' professional development plans. Centering on the application of artificial intelligence in accounting teaching, organize various teaching competitions at all levels, such as the Intelligent Financial Teaching Case Design Competition and the Online-Offline Integrated Teaching Innovation Competition, to encourage teachers to carry out practical innovation, polish their teaching skills, and achieve all-around improvement [13]. Second, build diversified training platforms. For example, schools can jointly establish teacher-enterprise practice mobile stations and "dual-qualified" teacher training bases with enterprises, enabling teachers to go deep into the front lines of enterprises, understand the latest industry trends, and master the application of artificial intelligence in accounting practice. Schools can also invite experts to give special lectures and hold workshops on artificial intelligence teaching technology to help teachers update their teaching concepts and improve their information-based teaching abilities. Third, improve the teacher professional title evaluation mechanism. Schools should increase the assessment weight of teachers' artificial intelligence-related teaching achievements, evaluating aspects such as the development of intelligent teaching resources and research on artificial intelligence-based teaching projects. Provide diversified professional title promotion channels for different types of teachers, including teaching-oriented, research-oriented, and "dual-qualified" types [14].

## 4.4. Deepening the teaching reform of accounting major to adapt to the intelligent development of the accounting industry

Deepening the reform of the accounting major is the key to the transformation of educational artificial intelligence and an important requirement for the major to adapt to the intelligent development of the industry. First, adjust the curriculum system. Schools should add courses that integrate artificial intelligence and accounting, such as intelligent finance and financial big data analysis. Introduce AI data analysis tools into these courses to enable students to systematically master knowledge and skills related to accounting intelligence. Second, innovative teaching methods. Teachers should focus on introducing case-based teaching and project-driven teaching methods. Combined with intelligent financial software such as Yonyou BIP, simulate real-world accounting business scenarios, so that students can improve their ability to apply artificial intelligence technology in practice. Taking "Yonyou BI" as an example, students can use the intelligent operation functions driven by AI large models to perform operations such as accounting processing and financial statement preparation, effectively accumulating experience in artificial intelligence applications and enhancing their practical abilities. Third, strengthen practical teaching. Schools can establish an in-school accounting intelligence training center, equipped with intelligent financial equipment and software to provide students with practical training. Introduce the DACE model for practical education, improve the top-level design of practical teaching, and enhance the quality of practical teaching.

## 4.5. Promoting school-enterprise cooperative education to enhance students' comprehensive practical abilities

Promoting school-enterprise cooperation is an important channel for enhancing students' comprehensive practical

abilities in the era of artificial intelligence. Schools and enterprises should closely collaborate to jointly formulate talent training programs and establish methods for cultivating practical and innovative abilities. The two parties can jointly establish a talent training steering committee, inviting industry experts such as corporate financial directors and senior partners of accounting firms to participate. Based on industry trends and enterprise job requirements, they can formulate curriculum syllabi to ensure seamless integration between curriculum content and actual work. For example, in response to the skill requirements of enterprises for positions such as intelligent finance and financial big data analysis, schools can add corresponding content to cultivate students' ability to use artificial intelligence to solve practical accounting problems [15]. In terms of joint talent cultivation, schools and enterprises can adopt a combination of "bringing in" and "sending out" approaches. Invite partners from leading accounting firms and senior executives, and experts from the digital intelligence industry to teach on campus, sharing the latest industry trends and practical experience. Teachers can lead students to the front lines of the industry to conduct immersive "mobile classroom" teaching. Additionally, order-based talent cultivation can be implemented by launching intelligent finance and digital employee order-class projects. Courses and teaching plans can be customized according to specific enterprise needs, providing students with targeted internship and employment opportunities. Schools and enterprises can jointly build internship bases, organize students to participate in actual enterprise projects, enable them to understand the practices of enterprise intelligent finance and digital transformation, and accumulate practical experience.

## 5. Conclusion

In conclusion, the application of artificial intelligence in higher vocational accounting teaching poses high requirements for teachers' application abilities and also provides development opportunities for education and teaching. In the era of artificial intelligence, teachers need solid professional knowledge and the ability to flexibly use digital tools to promote the dual innovation of teaching content and teaching methods. In response, higher vocational colleges can carry out targeted training, build communication platforms, construct a sound professional development system, deepen teaching reform, and strengthen school-enterprise cooperation, effectively improving teachers' ability to apply artificial intelligence, enhancing the quality of higher vocational accounting teaching, and providing students with better teaching services. With the continuous development of artificial intelligence technology, higher vocational accounting teaching needs to continue to explore and innovate to better adapt to the development and changes of the industry and society.

## Disclosure statement

The author declares no conflict of interest.

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