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The Influencing Factors and Improvement Paths of Applied Talent Training Mode under the Digital Informatization

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This study takes the human resource management major of Guangzhou Institute of Science and Technology as an example to discuss the factors influencing the applied talent training mode and improvement paths under digital informatization. The research points out that digital informatization poses new challenges and opportunities to higher education and requires the applied talent training mode to practice and innovate. This study identified five key influencing factors of the applied talent training mode under digital informatization: curriculum setting, teaching methods, faculty structure, practical teaching, and student training. This research presents the improvement paths, including optimizing curriculum settings, innovating teaching methods, adjusting teacher structure, improving practical teaching, and creating student training. Implementing these paths will help students master the latest knowledge and skills of digital informatization, improve their practical ability and innovative thinking to meet the social demand for human resource management professionals, and promote the development of higher education system.

Keywords: digital informatization, application talents, training mode, influencing factors, improvement paths, higher education

Introduction

With the rapid development of information technology, digital informatization has become an important trend in promoting the development of new times, and it has had a far-reaching and extensive impact on all walks of life (De Wit & Altbach, 2021). In this context, higher education, an important position to cultivate talents that society needs, is also facing unprecedented challenges and opportunities (Haleem, Javaid, Qadri, & Suman, 2022). Digital informatization has changed people's way of life and work and put forward new requirements for the traditional talent training mode (Basilotta-Gómez-Pablos, Matarranz, Casado-Aranda, & Otto, 2022). Especially for the applied talent training mode, digital informatization requires them to practice and innovate to adapt to the rapidly changing social needs and market environment (Liu & He, 2021).

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Guangzhou Institute of Science and Technology, as an institution of higher learning committed to the training of applied talents, the major in human resource management was approved as a first-class undergraduate major in Guangdong Province in November 2020 and a national first-class undergraduate major in June 2022. It always adheres to the guidance of comprehensively improving students' professional competence in human resource management, cultivating senior applied talents in human resource management with wide knowledge, strong ability, and excellent business to serve the economic development of the Guangdong-Hong Kong-Macao Greater Bay Area. According to the professional ability requirements of the society for applied management talents, take the innovation ability training as the keynote, innovate the talent training mode, reform the education and teaching mode, create the three-dimensional and open experimental practice teaching mode, and cultivate students' practical ability, innovative spirit, and entrepreneurial ability; relying on the industry association, deepen the integration of enterprise and education. In many years of development, it has gradually formed its unique teaching system and talent training mode. It has also focused on combining theory and practice to cultivate students' practical operation ability and innovative thinking. However, in the context of digital informatization, the talent training mode of this major still needs to be further optimized and innovated to meet the new demand for human resource management professionals in the era.

Based on the above, this study aims to take the human resource management major of Guangzhou Institute of Science and Technology as an example to explore the influencing factors of the applied talent training mode under digital informatization and propose the improvement path. Therefore, this study is of great value for promoting the development of the human resource management major and even other majors of the whole higher education system in digital informatization.

Opportunities and Challenges of Training Applied Talents in Human Resource Management in Digital Informatization

In digital information, training applied talents in human resource management has ushered in unprecedented opportunities (Wiblen & Marler, 2021). First, with the deepening application of technologies such as big data, cloud computing, and artificial intelligence, enterprises have a surge in demand for application-oriented talents who can use these technologies to make human resource management decisions, optimize recruitment and training processes, and enhance employee experience (Vardarlier, 2020). This demand not only promotes the innovation of the content of human resource management professional education and encourages educational institutions to strengthen the integration of interdisciplinary knowledge, such as data science and information technology, but also provides students with more practical opportunities, such as participating in enterprise digital transformation projects and using data analysis tools to solve practical human resource management problems (Garcia-Arroyo & Osca, 2021). These opportunities make the applied talents of human resource management professionals more competitive in the job market and can create more excellent value for the enterprise (Bhardwaj, Singh, & Kumar, 2020).

However, digital informatization has also brought many challenges to training applied talents in human resource management (Wiblen & Marler, 2021). On the one hand, the rapid iteration of technology requires students to constantly learn and master new knowledge and skills, which puts higher requirements on students' learning ability and self-driven force (Budhwar, Malik, De Silva, & Thevisuthan, 2022). On the other hand, the data security and privacy protection issues involved in the process of digital human resource management have become increasingly prominent, requiring application-oriented talents to master the technology but also have a

good sense of ethics and legal literacy to ensure that the use of technology is in compliance with relevant laws and regulations, to protect the legitimate rights and interests of employees and enterprises (Zhang & Chen, 2024). In addition, digital transformation may also lead to changes in enterprises' internal organizational structure and management model, requiring application-oriented talents to have more robust adaptability and change management ability to cope with possible changes and challenges (Fernandez & Gallardo-Gallardo, 2021). Therefore, educational institutions should pay attention to students' comprehensive quality and ability when cultivating application-oriented talents in human resource management to cope with various challenges brought by the digital information age (Strohmeier, 2020).

Influencing Factors of the Applied Talent Training Mode of Human Resource Management Major

Curriculum Setting

In digital informatization, the human resource management major's curriculum setting and teaching content have become the key factors affecting applied talent training. The traditional curriculum system may need to focus more on theoretical knowledge and lack a combination with digital information practice, making it difficult for students to adapt to the rapidly changing market demand (Ma, Dong, Zhang, & Xie, 2021). Therefore, it is necessary to optimize the curriculum setting and increase the courses related to digital information, such as big data analysis and the application of artificial intelligence in human resource management, to improve students' digital information literacy and practical ability. The teaching content must be updated to follow industry trends and ensure that students can master the latest knowledge and skills (Timotheou et al., 2023).

Teaching Methods

Teaching methods are another important factor affecting the quality of training applied talents. Traditional teaching methods are teacher-centred and lack interaction and practical operation with students. In digital informatization, more flexible and diverse teaching methods, such as case teaching, simulation training, and flipped classrooms, are needed to stimulate students' interest and enthusiasm in learning (Liu, Tretyakova, Fedorov, & Kharakhordina, 2020). Moreover, information teaching methods, such as online teaching platforms and virtual simulation laboratories, can provide students with more personalized and accurate learning experiences to improve the teaching effect and students' practical ability (Kaputa, Loučanová, & Tejerina-Gaite, 2022).

Faculty Structure

The faculty structure and quality directly determine the training level of applied talents. In digital informatization, teachers majoring in human resource management must have more comprehensive knowledge and skills (Garzón Artacho, Martínez, Ortega Martín, Marín Marín, & Gómez Garcia, 2020). They should be proficient in the traditional human resource management theory and familiar with the related technologies and applications of digital informatization. However, the current faculty may need help with an aging knowledge structure and need more practical experience (Dong, Wang, Yang, & Kurup, 2020). Therefore, it is necessary to strengthen the construction of faculty, introduce teachers with digital information backgrounds, and increase the training of existing teachers, improve their digital information literacy and practical ability better to meet the needs of talent training under digital information (Haapaniemi, Venäläinen, Malin, & Palojoki, 2021).

Practical Teaching

Practical teaching is important to cultivate students' practical operation ability and innovative thinking in training applied talents. In digital informatization, the human resource management major needs practical teaching and provides students with more opportunities for practice through institution-enterprise cooperation and practical training base construction (Ma & Ding, 2022). However, the current practical teaching may have challenges, such as insufficient resources and poor cooperation. Therefore, it is necessary to strengthen the construction of a practical teaching system, deepen institution-enterprise cooperation, and jointly develop practical courses and projects with enterprises so that students can master digital information skills in practice and improve their practical ability and innovation ability (Nicolás-Agustín, Jiménez-Jiménez, & Maeso-Fernandez, 2022; Kim, Wang, & Boon, 2021).

Student Training

In digital informatization, the training applied talents of human resource management majors need to cultivate and evaluate students' abilities. The traditional talent training mode often needs to transmit knowledge and evaluate examination results, ignoring the cultivation of students' practical operation ability and innovative thinking (Goulart, Liboni, & Cezarino, 2022). Therefore, it is necessary to establish a more scientific and comprehensive system of student ability training and evaluation and cultivate students' digital information literacy, practical ability, and innovative thinking. We should promote the personalized development of students and provide diversified learning and development paths to stimulate students' potential and creativity. In addition, the evaluation system also needs to be reformed to introduce more practical and innovative evaluation indicators to reflect students' abilities and quality fully (Kaputa et al., 2022).

Improvement Paths of Applied Talent Training Mode in Human Resource Management Major

Optimize Curriculum Settings

Improve the training quality of applied talents in human resource management, and it is necessary to optimize the curriculum and add courses related to digital informatization, such as big data analysis and artificial intelligence applications, to ensure that students master the latest knowledge and skills of digital informatization (Tang, 2022). Furthermore, the teaching content also needs to be constantly updated, keep up with the development trend of the industry by introducing practical cases and cutting-edge theories, enhance the practicality and innovation of the course, and improve student's ability to adapt to the social demand (Timotheou et al., 2023).

Innovate Teaching Methods

In digital informatization, more flexible and diverse teaching methods, such as case teaching, simulation training, and flipped classrooms, should be adopted to stimulate students' interest and enthusiasm in learning (Mohamed Hashim, Tlemsani, & Matthews, 2022). Using information teaching means, such as online teaching platforms and virtual simulation laboratories, to provide students with more personalized and accurate learning experiences. Furthermore, teachers are encouraged to adopt project system teaching to improve students' practical ability and innovative thinking in solving practical problems (Gao, Lai, & Huang, 2021).

Adjust Teacher Structure

Given the possible problems of aging knowledge structure and lack of practical experience in the current teaching staff, it is necessary to strengthen the construction of teaching staff (Fitria & Suminah,

2020). Teachers with digital information backgrounds should be introduced to supplement new blood. The training of existing teachers should be strengthened to improve their digital information literacy and practical ability by regularly organizing teachers to participate in professional training, academic exchanges and enterprise practice activities to improve the overall quality and teaching level of teachers (Haapaniemi et al., 2021).

Improve Practical Teaching

Enhancing students' practical and innovative abilities is necessary to deepen the cooperation between practical teaching and institution and enterprise. By jointly developing practical courses and projects with enterprises, students can master digital information skills in practice and understand the actual needs of enterprises (De Wit & Altbach, 2021). Moreover, it will strengthen the construction of the training base to provide students with more abundant practice opportunities. In addition, enterprise experts can also be invited to give lectures or guide students in practice to enhance students' professional quality and practical ability (Liu et al., 2020).

Create Student Training

To fully reflect students' ability and quality, we need to reform students' ability cultivation and evaluation system. While knowledge transmission, we focus on cultivating students' practical operation ability and innovative thinking (Mohamed Hashim et al., 2022). Introduce more practical and innovative evaluation indicators, such as project completion degree, quality of practice report, and innovative thinking display. Furthermore, it is the personalized development of students that provides diversified learning and development paths to stimulate students' potential and creativity (Guerra, Danvila-del-Valle, & Méndez-Suárez, 2023).

Conclusions

Taking the human resource management major of Guangzhou Institute of Science and Technology as an example, this study discusses the factors influencing and improving paths of the applied talent training mode under digital informatization. The research points out that to adapt to the development needs of the digital information age, it is necessary to comprehensively optimize and innovate the key factors such as curriculum setting, teaching methods, faculty structure, practical teaching, and student training. Optimizing curriculum settings, innovating teaching methods, adjusting teacher structure, improving practical teaching, and creating student training are the paths to improvement in applied talent training. It can ensure that students master the latest digital information knowledge and skills and improve their practical ability and innovative thinking to meet the social demand for human resource management professionals.

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Authors' Contributions

Fuze Fang & Huanyang Zeng: writing-review & editing, project administration.

Xiaojun Ke & Xin Li: conceptualization, writing-original draft, validation.

Binsheng Chen & Bohang Chen: English polishing, formal analysis, validation.

Ethics

The paper presents original content that has not been published elsewhere. The corresponding author confirms that all co-authors have reviewed the manuscript and that it does not raise any ethical concerns.

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