

# Research on Human Resource Management of Educational Innovation under the Background of Digital Transformation

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**Keywords:** Digital Transformation; Educational Innovation; Human Resource Management; Talent Cultivation; Educational Reform

**Abstract:** This article discusses the human resource management of educational innovation under the background of digital transformation. At the moment when information technology promotes changes in various fields, the importance of human resource management in educational innovation is prominent. The purpose of this study is to analyze the situation of human resource management in educational innovation under this background and explore effective strategies. This article uses theoretical analysis to deeply analyze the theory of digital transformation, educational innovation and human resource management. It is found that it faces challenges such as unreasonable talent structure, lagging management concept and technology, as well as opportunities such as technology empowerment, model innovation and talent attraction. Based on this, this article puts forward that the strategy should be formulated from three aspects: the construction of talent team, the change of management concept and the improvement of management technology. These include accurate recruitment, building a digital training system, establishing a talent-centered concept, strengthening cooperation and applying digital tools and data analysis, etc., in order to optimize the management of educational innovation human resources and promote the development of education in the digital age.

## 1. Introduction

With the rapid development of information technology, digital transformation has become the core driving force of change in various fields around the world [1]. As a key position to train future talents, the field of education is also actively adapting to this trend and promoting educational innovation in order to cultivate high-quality talents to meet the needs of the digital age [2]. In this process, human resource management has become a key factor to determine the effectiveness of educational innovation, which is related to whether educational institutions can attract, cultivate and retain professionals who adapt to digital transformation [3].

The purpose of this study is to deeply analyze the unique challenges and opportunities faced by educational innovation human resource management under the background of digital transformation, and put forward targeted and operable management strategies. It is of great significance, which is expected to enrich and expand the theoretical system of educational human resource management and provide new perspectives and ideas for follow-up research. At the same time, it can provide practical and effective guidance for all kinds of educational institutions to optimize human resource management in the digital wave, help improve the quality of education and innovation ability, and thus better meet the needs of society for digital talents.

This article comprehensively grasps the research status and development trend in this field; At the same time, using the theoretical analysis method, the related theories such as digital transformation, educational innovation and human resource management are deeply analyzed, which lays a solid theoretical foundation for the follow-up research.

## 2. Digital transformation and educational innovation human resource management theory

Digital transformation refers to the process of reshaping business models and operational processes in an all-round way by using digital technology. Its core lies in promoting the innovation and development of the organization through data collection, analysis and application [4]. In today's era, digital transformation is driven by technological progress, market competition and other factors, and has penetrated into various industries. For example, the development of technologies such as cloud computing, big data and artificial intelligence provides technical support for enterprises and institutions to realize digital transformation; The market demand for personalized products and services urges organizations to enhance their competitiveness by digital means.

Educational innovation aims to break the shackles of the traditional educational model and introduce new ideas, methods and technologies to improve the quality and effect of education [5]. It emphasizes student-centered and pays attention to cultivating students' innovative thinking, practical ability and digital literacy. Educational innovation covers many aspects, such as curriculum innovation, developing courses that integrate cutting-edge knowledge with practical application; Innovative teaching methods, using online and offline mixed teaching and project-based learning to stimulate students' interest in learning.

The theory of human resource management has evolved from traditional personnel management to modern strategic human resource management [6]. Classical theories, such as Maslow's hierarchy of needs, emphasize meeting the needs of employees at different levels to stimulate their enthusiasm for work; The theory of career planning focuses on the career development path of employees and helps employees realize their own values. In the digital age, the theory of human resource management has made new development, such as paying more attention to the cultivation of talents' digital ability and optimizing management process by digital means.

Digital transformation provides technical support and development direction for educational innovation, and promotes innovative changes in teaching mode and curriculum setting in the field of education [7]. The promotion of educational innovation is inseparable from the support of human resource management, and reasonable human resource management can attract and cultivate talents who adapt to educational innovation. At the same time, digital transformation also brings new tools and methods to human resource management, and improves management efficiency and accuracy. In a word, the three are interrelated and influence each other, and jointly promote the development of education in the digital age.

## 3. Challenges and opportunities faced by educational innovation human resource management under the background of digital transformation

### 3.1. Challenges faced

Table 1 Comparison of Current Talent Structure and Demand Changes in the Education Industry

Category	Current Proportion	Estimated Proportion in the Next 3-5 Years
Traditional Education Talents	70%	50%-60%
Talents Integrating Digital Technology and Education	15%	30%-40%
Others (Administrative, etc.)	15%	10%-20%

With the deepening of digital transformation in the field of education, the demand structure for talents has changed significantly [8]. Traditional education talents mostly focus on imparting subject knowledge, but now they need a large number of compound talents who understand both educational theory and digital technology and can effectively integrate them. For example, such talents are needed to carry out online teaching and develop digital curriculum resources. However, it is difficult for the current talent structure of the education industry to adapt to this change quickly. According to relevant research (see Table 1), among the 150 educational institutions sampled, traditional education talents account for 70%, while talents with the ability to integrate digital

technology and education only account for 15%. However, it is expected that this proportion will increase to 30%-40% in the next 3-5 years, and the talent gap is obvious.

The traditional concept of human resource management focuses on transactional work, such as personnel recruitment and salary accounting, and pays insufficient attention to the innovation and personalization of talents [9]. Under the background of digital transformation, educational innovation needs a talent-centered management concept, focusing on stimulating the innovative potential and creativity of talents. However, many educational institutions have not completely changed their management concepts, and still use traditional assessment methods to measure employee performance, ignoring employees' exploration and attempts in the process of educational innovation, which is not conducive to creating an organizational atmosphere that encourages innovation.

In the digital age, human resource management needs advanced technical means to improve efficiency and scientific decision-making. However, at present, many educational institutions are lagging behind in the application of management technology [10]. For example, the lack of accurate talent assessment tools makes it difficult to accurately assess whether candidates have the ability needed for educational innovation; In performance management, there is no perfect data analysis system, and it is impossible to deeply analyze and feedback employee performance based on data, which leads to the lack of scientific basis for management decision-making.

### **3.2. Opportunities brought by**

Digital technology brings many conveniences to human resource management. Big data technology can help educational institutions to accurately screen talents that meet the needs of educational innovation from a large number of resumes during the recruitment process, and improve the efficiency and quality of recruitment. Artificial intelligence technology can be applied to intelligent training system to provide personalized training courses according to the learning progress and characteristics of employees and improve the training effect. In addition, the online collaboration platform can achieve efficient communication and collaboration among remote teams, break geographical restrictions and integrate high-quality human resources.

Digital transformation promotes educational innovation and human resource management mode to innovate constantly. Virtual team management mode is gradually emerging, and educational institutions can form teams across regions to jointly carry out digital curriculum development, online teaching research and other projects. Flexible working modes, such as telecommuting and flexible working hours, provide employees with greater autonomy, help attract and retain talents, and stimulate employees' enthusiasm and creativity.

The innovative scene of digital education has unique attraction, which can attract high-quality talents with innovative thinking and digital skills. For the younger generation of talents, they are eager to work in an environment full of innovation and vitality. The cutting-edge technology application scenarios and rich innovation practice opportunities provided by digital education innovation make it an important factor to attract talents. This provides a good opportunity for educational institutions to optimize the talent structure and inject fresh blood.

## **4. Human resource management strategy of educational innovation under the background of digital transformation**

### **4.1. Talent team building strategy**

Based on the needs of digital transformation, it is very important to make an accurate talent recruitment plan. Clear recruitment standards, in addition to professional knowledge, focus on the digital literacy and educational innovation potential of candidates. To expand recruitment channels, we should not only rely on traditional recruitment platforms, but also tap talents through emerging channels such as educational technology forums and digital education communities. For example, set up a special online recruitment page to show the achievements of educational innovation projects and attract target talents. Referring to Table 2, we can clearly see the importance of various

abilities in recruitment evaluation:

Table 2 Weighting of Evaluation Criteria for Educational Innovation Talent Recruitment

Evaluation Project	Weight
Educational Expertise	30%
Digital Technology Skills	30%
Innovative Thinking and Potential	20%
Team Collaboration Ability	10%
Communication Skills	10%

The construction of digital training system can effectively meet the needs of employees to improve their digital technology application ability and educational innovation ability. The system systematically covers the core contents such as artificial intelligence education application and digital curriculum design by developing diversified online courses. Virtual practice platform provides simulated teaching scenes for employees, enabling them to explore innovative teaching methods in practice. At the same time, enterprises/institutions make personalized career development plans for employees to promote their professional growth. Taking Table 3 as an example, the development plan has designed differentiated development paths for employees at different stages, such as novice teachers and experienced teachers.

Table 3 Examples of Career Development Plans for Employees at Different Stages

Employee Stage	Career Development Focus	Training Direction
Novice Teachers	Familiarize with digital teaching tools and master basic educational innovation methods	Basic Digital Teaching Courses, Educational Innovation Case Analysis
Experienced Teachers	Delve into educational innovation projects and enhance team collaboration and leadership skills	Educational Innovation Project Management, Advanced Digital Technology Applications

#### 4.2. Management concept transformation strategy

Organizational culture should encourage innovation and tolerate failure in order to create a positive working atmosphere. The performance evaluation system not only pays attention to the final results, but also pays attention to the efforts and attempts of employees in the process of innovation. Innovation incentive mechanism can give material and spiritual rewards to employees who actively participate in educational innovation and achieve results, thus stimulating employees' enthusiasm and initiative.

Inter-departmental collaboration model helps to break departmental barriers and promote knowledge sharing and resource integration. Regular communication mechanism can ensure information exchange between different teams and improve cooperation efficiency. Education innovation works is jointly participated by teaching departments and technical departments, and cooperation is carried out around specific projects to accelerate the transformation and application of innovative achievements.

#### 4.3. Management technology promotion strategy

Advanced human resource management software is introduced to realize the digital management of recruitment, training, performance and salary modules. Enterprises can accurately evaluate the matching degree between candidates and positions through talent evaluation software, and improve the recruitment accuracy. Online training platform can track the learning progress of employees in real time and ensure the visualization of training effect. The performance management system can automatically generate performance reports, significantly improving management efficiency and data accuracy.

Human resource data analysis system can comprehensively collect multi-dimensional data such as employee performance, training feedback and career development, and form a complete talent

database. Data analysis tools can predict future talent demand and optimize organizational talent allocation strategies. The training effect evaluation module can identify the most popular courses and skills training programs with remarkable effects, and provide data support for the optimization of training system. Based on the results of scientific data analysis, the human resource decision-making system can formulate more accurate talent development strategies.

## 5. Conclusions

This article deeply studies the human resource management of educational innovation under the background of digital transformation, and has achieved a series of results. On the theoretical level, the related theories of digital transformation, educational innovation and human resource management are elaborated in detail, and the relationship among them is analyzed. In practice, the current challenges and opportunities are clearly pointed out. Challenges in talent structure, management concept and management technology need to be solved urgently, while opportunities such as technology empowerment, model innovation and talent attraction provide opportunities for development. In view of these situations, the proposed strategies of talent team construction, management concept transformation and management technology upgrading have strong pertinence and operability. The construction of talent team starts with the development of recruitment and training, ensuring to attract and train talents who adapt to digital transformation. The change of management concept pays attention to talent-centered, strengthens cooperation and creates an environment conducive to innovation. The improvement of management technology emphasizes the application of digital tools and data analysis to drive decision-making, which improves management efficiency and scientificity.

However, there are still some limitations in this study. For example, the research on the differences of human resource management in the digital transformation of different types of educational institutions (such as public and private, basic education and higher education) is not deep enough. Future research can further focus on these differences and put forward more targeted strategies to promote all kinds of educational institutions to better realize educational innovation and improve the level of human resource management in the digital age.

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