

Research on Employee Training Innovation in the Context of Artificial Intelligence

Zhaoyong Ouyang*, Guanlin Liu, Lina Sha

Graduate University of Mongolia, Ulaanbaatar 15160, Mongolia

*Corresponding author: Zhaoyong Ouyang, ouyangzhaoyong2@126.com

Copyright: © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: As an emerging technology, artificial intelligence has great potential for improving employee training in enterprises. This paper aims to explore the significance of applying artificial intelligence in employee training and put forward relevant strategies for innovative employee training. Artificial intelligence constructs the process learning ecology through the whole thinking process of training, such as by emphasizing human-machine interaction, using artificial intelligence to create an immersive intelligent training system, focusing on reflective practical thinking, constantly improving the ability and level of artificial intelligence training, improving the learning ability and competitiveness of employees.

Keywords: Staff training; Artificial intelligence; Process learning ecology; Immersive intelligent training system; Reflective practical thinking.

Online publication: February 26, 2024

1. Introduction

With the rapid advancement of technology, artificial intelligence (AI) has become the focus of social discussion today. This technology has been widely used in many industries, including healthcare, finance, transportation, and other aspects. However, with the rise of artificial intelligence, traditional ways of working and skill requirements are also changing. In the era today, when talent is the core competitiveness, the method of using artificial intelligence to improve the effectiveness of staff training is a significant issue to research. This paper aims to explore how artificial intelligence can promote the innovation of enterprise staff training and put forward corresponding strategies, such as emphasizing the process of thinking, utilizing artificial intelligence through the training process to build the process learning ecology, focusing on human-machine interaction, using artificial intelligence to create immersive intelligent training system, encouraging reflective practical thinking, and constantly improving the ability and level of artificial intelligence training. It is hoped that this research can provide enterprises and organizations with strategies on artificial intelligence to promote the innovation of enterprise staff training, to promote the personal development of employees and the continuous innovation of organizations, and to enhance the sustainable competitiveness of enterprises and employees.

2. Overview of staff training

2.1. Connotation of staff training

Enterprises would implement a series of efficient education and training means, and also plan management processes for improving human quality strategically and purposefully to promote business behavior and economic exchanges, enhance business effectiveness, and shape outstanding talents ^[1]. It is an integral part of modern business management that helps to significantly optimize the professional capabilities of employees and drive the company towards better development.

2.2. Contents of staff training

Employee training content includes basic knowledge training, professional ability training, team culture cultivation, and professional attitude training (**Figure 1**).

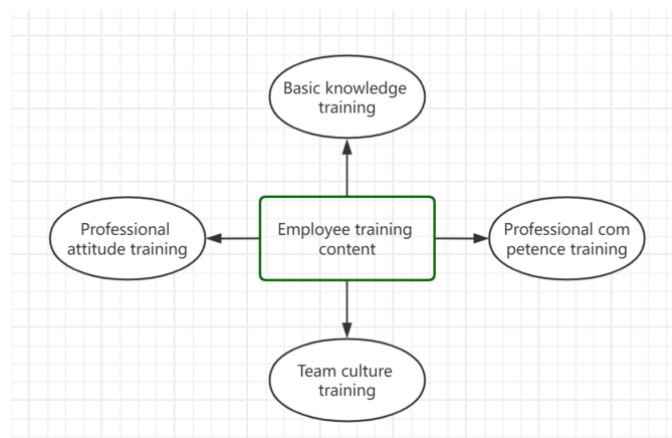


Figure 1. Main contents of staff training

2.2.1. Basic knowledge training

Staff training first needs to convey to employees the business information, rules and regulations, policies, and other related knowledge, so the training content includes the enterprise's policies and guidelines, the economic policies and regulations of the enterprise's operation, the ideology and ethics of the enterprise as a social subject to participate in social production and life, modern management knowledge, rules, and regulations. In addition, it also includes the ideology and ability of service etiquette, workplace etiquette, and service awareness required in the work of enterprises and business services.

2.2.2. Professional ability training

Staff training also includes professional skills, quality, and knowledge training. Usually, employees in different positions and business sectors need to have different professional abilities, so the specific content and focus of staff training are different. For example, employees in logistics management positions receive professional training content that usually includes distribution and sorting technology, modern logistics system operation technology, logistics management knowledge, and so on. The professional training content received by marketing staff is usually sales, product promotion, advertisement planning, customer management, and others.

2.2.3. Team culture cultivation

In the enterprise, team spirit building covers a series of education and training plans that are closely related to the values of the company and its long-term development strategy. These plans usually involve the long-term

vision of the organization, the mission statement, the commitment to social responsibility, the corporate value creed, and the encouragement of team collaboration. Such training is designed to help employees be equipped with the professional knowledge and ability to adapt to the working atmosphere and cultural background of the company, thus promoting the overall quality of employees.

2.2.4. Professional attitude training

Professional attitude training is a top priority in employee training as it is the basis and core of whether employees can actively participate in various types of work, which includes enterprise professionalism, punctuality, cooperativity, and other professional attitudes.

3. The significance of applying artificial intelligence in employee training

The development of smart technology has dramatically reshaped our behavior at work and in daily life, including the application of artificial intelligence, visual recognition, data analysis, and natural language processing in the field and specialized systems that have shown significant positive benefits in terms of training ^[2]. These technologies have become the core force to promote the continuous improvement of the technical level of employees, not just in terms of training progress but also the basic needs of enterprises to keep innovating and moving forward. Most organizations have recognized the critical importance of integrating artificial intelligence technologies into organizational enhancements and employee training programs, so they are actively seizing the opportunities that come with adapting to this trend.

3.1. The development of employee training in enterprises has been significantly promoted by the application of artificial intelligence

The rapid development of intelligent technology has greatly improved the efficiency of the staff training process and played a crucial role in reducing the waste of time, and human and material resources. On the contrary, traditional staff training has gradually become less effective in improving the quality of staff and training. With the continuous innovation of intelligent technology, this outdated teaching model is gradually being phased out and no longer meets the needs of modern training. At present, enterprises are facing a training environment that needs diversification and innovation that is not bound by time and space, to the point that intelligent technology has become a mandatory requirement. This is not only an important boost to progress in the field of education and training but also reflects the fundamental needs of the growth and expansion of companies.

3.2. Enterprises must adopt the application of artificial intelligence technology for the training and development of employees

The utilization of artificial intelligence technology at the company management level, especially for employee training institutions, has provided quick and efficient assistance to employees to master the skills and professional literacy of diversified responsibilities, which is becoming an indispensable direction for many enterprises in the future growth process. Traditional training methods are not sufficient to meet the requirements of a company's human resource management, and it is difficult to meet the actual needs of staff skills improvement, especially in terms of intelligent technology, where staff must learn the necessary intelligent operating skills to perform and complete the corresponding responsibilities. Therefore, if the use of the traditional teaching mode persists, it will not catch up with the progress of time.

3.3. The application of artificial intelligence is the domestic demand of enterprise development in the new era

Technological progress reshapes the future of lives and businesses. At present, the rapid change in innovative technology is leading the economy, science, and technology to move forward vigorously, further improving the development potential of enterprises, while the market economy pattern is also quietly changing. In the era of rapid change and fierce competition in the market, ways of breaking the barriers and grasping the opportunities for innovation and development have become its base and the core driving force for development. Integrating artificial intelligence technology into the training systems of enterprises can expand the training path, optimize the training model, and increase the attractiveness of training. Therefore, enhancing the application of artificial intelligence in the field of enterprise education and training is not only a development trend but also a crucial research direction for future development.

4. Problems in traditional employee training

4.1. Lack of training needs analysis

Training demand analysis is based on different business strategies of enterprises that involve scientific analysis of training work to grasp and understand the training object, training reasons, training content, and other aspects of the problem for in-depth discussion. Through the analysis of the investigation and research of relevant scholars, it is found that many enterprises have a certain understanding of the basic situation and training needs of the trainees before receiving training, but at present, the enterprises do not have an in-depth understanding of the needs and conditions of the trainees. Before undergoing training, most enterprises generally lack organizational analysis, task analysis, and employee analysis while facing other problems, such as blindly carrying out training. There is a lack of detailed scientific investigation and analysis before training. In many cases, the training decisions of enterprises are made based on the subjective wishes of the managers. Most staff training work is not systematic, comprehensive, scientific, and coherent, so it is impossible to coordinate and balance the different needs between the development of the company and its employees.

4.2. Managers do not pay enough attention to training

Enterprise managers have a biased perception of talent training, believing that training is a cost expenditure rather than an investment. Training often needs huge sums of money on course purchase, teacher hiring, and training venue rental, and the investment in staff training may not result in short-term or long-term benefits, such as a change in staff attitude and the improvement of work performance, which are factors difficult for enterprises to measure objectively. Additionally, some managers believe that training is the work of the human resources department, so it should only be organized and implemented by the department, causing uncooperativeness. Finally, some managers think that training is just a lecture that does not fully educate on actual working scenarios.

4.3. Employees are not motivated to participate in training

The training schedule of the company may be unreasonable. Some constructive learning activities will interfere with the normal work rhythm of employees or occupy their rest time, which would cause the opposite effect and reduce their enthusiasm to actively participate in training and learning. Moreover, the enterprise lacks the organizational culture of learning and innovation. Most employees only pay attention to the task at hand, so they are unwilling to conduct training and learning independently, failing to recognize the positive impact of acquiring new knowledge on personal career development. Furthermore, enterprises lack the awareness

of phased training, as they often use centralized training methods to instill an overwhelming amount of new knowledge in employees in a short period of time, which may lead to inattentiveness and fatigue in employees.

4.4. Insufficient trained teachers

Enterprises invest limited resources in training due to the limitations of their development. Most of their training instructors are internal employees who are often not specially trained, so they lack good teaching skills and the ability to develop courses. Also, the selection criteria for training instructors are not clear and arbitrary, resulting in uneven quality levels of training instructors. Additionally, the assessment and evaluation system of the training instructor may not be perfect, resulting in the training focusing on useless theoretical knowledge that differs from the actual work, thus failing to achieve the ideal training effect.

4.5. Training system lack sound and institutionalized process management

The employee promotion framework implemented by enterprises mainly consists of four component structures, which are education management, teaching materials, implementation operation, and effect monitoring. Among them, the education management structure involves financial planning, regulations, and measures; the teaching materials structure includes tutorial materials, interactive platforms, and other content; the executive operation structure covers demand survey, program design, and other links; while the effect monitoring structure includes effectiveness evaluation and other aspects. However, the training system of most enterprises is not perfect as there is no special training management system, systematic regulation and supervision of the organization, implementation of staff training, and the application of training results. In addition, the staff training of the enterprise lacks standard process management, as most of them are improvised to solve the problems existing in the current business, so the annual training plan is not formulated with the real needs of the employees and does not deal with the core difficulties in enterprise operation. At the same time, the evaluation of the training is lacking after the completion of the training, as the follow-up training effect is not tracked.

5. Artificial intelligence drives innovative strategies for employee training

5.1. Artificial intelligence focuses on the whole process of thinking to build a process learning ecology

The utilization of artificial intelligence in staff training can improve its effectiveness by creating a humanized interactive learning environment, stimulating the learning enthusiasm of staff training, and increasing the sense of learning. Artificial intelligence can analyze data to regularly evaluate the effectiveness of staff training to ensure that the training effect can be effectively converted into work efficiency. The data processing capabilities of artificial intelligence can also provide a customized growth path for each employee. Moreover, enterprises can design personalized artificial intelligence learning programs for employees according to the ability requirements formulated by human resources that combine factors such as their strength, learning willingness, and opinions on superiors to ensure that employees can get correct guidance, effective reminders, and persist in learning until mastery in the training process ^[3].

5.2. Focus on human-machine interaction and using artificial intelligence to create an immersive intelligent training system

Immersive intelligent training system is an intelligent system that integrates the four functions of voice intelligent interaction, system simulation operation, performance assessment, and data analysis ^[4]. Through this immersive intelligent training system, a constant and interactive learning experience can be achieved.

The application of digital intelligence can achieve all-around and multidimensional analysis and training that provides a basis for business stratification, personnel classification, and advanced training with training accuracy and effectiveness being constantly improved. Hence, the utilization of this immersive intelligent training system based on artificial intelligence can accomplish a smart training system with all-around and intelligent talent training.

5.3. Emphasis on reflective practical thinking and the constant improvement of the ability and level of artificial intelligence training

Utilization of artificial intelligence in employee skill building based on the cognitive framework of reflective practice can effectively promote their continuous progress in the industry [5]. Integration of artificial intelligence in reflective practice can help educators grasp the development trend and application status of emerging intelligent technologies to broaden the scope of individual theoretical knowledge. Moreover, it can stimulate educators to make use of intelligent technology in teaching practice and continuously reflect on the application methods, values, and rationality of artificial intelligence in education while constantly enriching their understanding of the practical operation of artificial intelligence in education. In addition, it can help educators realize the interaction between theory and practice through the design and implementation of teaching scenarios, teaching aids, and resources based on an in-depth understanding of artificial intelligence subject knowledge and educational practical experience to continuously promote the growth of their professional fields.

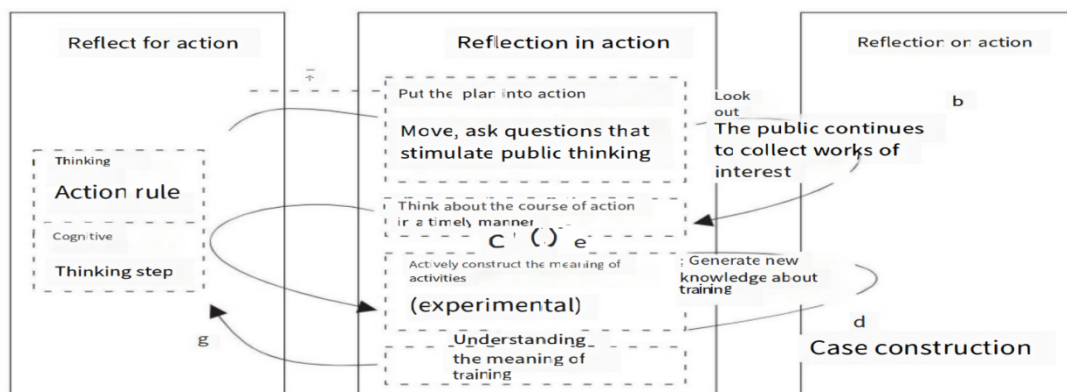


Figure 2. Reflective practical thinking process.

Disclosure statement

The author declares no conflict of interest.

Author contributions

Conceptualization: Zhaoyong Ouyang

Literature review: Lina Sha

Methodology: Guanlin Liu

Data collection: Lina Sha

Data analysis: Zhaoyong Ouyang

Result interpretation: Guanlin Liu

Writing: Zhaoyong Ouyang, Lina Sha

References

- [1] Zheng ZR, 2022, Staff Training and Talent Team Construction of State-owned Enterprises in the New Era. *Human Resources Development*, 2022(11): 90–92.
- [2] Li TJ, 2021, Research on the Application of Artificial Intelligence in Enterprise Employee Training. *China Small and Medium-sized Enterprises*, 2021(07): 168–169.
- [3] Wang LH, Chen LJ, 2023, Artificial Intelligence Helps Enterprises Customize Training. *Human Resources*, 2023(19): 24–25.
- [4] Liu T, Cai J, 2021, Immersive Virtual Collaborative Training System Based on Virtual Reality Design. *Journal of Equipment Management and Maintenance*, 2021(11): 124–128.
- [5] Sun H, Zhang ZH, 2002, Innovation of teacher training model for Artificial Intelligence Technology under The Guidance of Reflective Practical Epistemology. *Future and Development*, 46(04): 24–29.

Publisher's note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.