AI-Enabled New Thinking in Student Classroom Management: Taking the Labor Education and Practice Course at Chengdu Neusoft University as An Example

Xiang Deng

Neusoft University, Chengdu, China

* Corresponding Author Email: dengxiang@nsu.edu.cn

Abstract. In the context of the new era, labor education has become an increasingly important approach for cultivating students' all-around development in morality, intelligence, physical fitness, aesthetics, and labor skills, attracting more attention from educators. Chengdu Neusoft University actively responds to the national call for comprehensively strengthening labor education in primary, secondary, and higher education institutions in the new era. By leveraging AI technology, it innovates new thinking in student classroom management, particularly applying AI technology to labor education and practice courses, achieving remarkable results. Through literature review and theoretical framework construction, this paper analyzes the current application status of AI technology in the field of education and its implications for labor education. This includes personalized learning path design, intelligent attendance and behavior analysis, interactive learning experiences, real-time feedback and intervention, teacher decision support, and dynamic adjustment of course content. By conducting an in-depth analysis of the "Labor Month" themed educational activities at Chengdu Neusoft University, this article demonstrates the practical application of AI technology in labor education and practice courses. This includes how to use AI tools for student assessment, customize personalized learning plans, automatically generate and grade assignments, and provide immediate feedback. The new thinking in student classroom management empowered by AI can effectively enhance the effectiveness and quality of labor education, providing strong support for cultivating socialist builders and successors who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor skills. In the future, as AI technology continues to develop and improve, its application prospects in the field of education will be even broader.

Keywords: AI Empowerment; Classroom Management; Labor Education; Practical Courses.

1. Introduction

1.1. Research Background

With the rapid development of society, teenagers are facing more and more challenges and pressures. In this context, strengthening labor education is particularly important. Through labor education, it is possible to cultivate young people's labor concepts, skills, and spirit, helping them better adapt to the needs of social development. In recent years, the government has attached great importance to the role of labor education in talent cultivation. The government has issued a series of policy documents that explicitly require the inclusion of labor education in the entire process of talent cultivation, and actively explore new models of labor education.[1] The introduction of these policies provides strong guarantees and support for the implementation of labor education. There are some misconceptions and distorted values about labor in society. Some people believe that labor is inferior and unwilling to engage in physical labor; Some people pursue material benefits too much and overlook the spiritual value of labor. The existence of these phenomena seriously hinders the promotion of labor education. Therefore, strengthening labor education is not only necessary to improve the quality of young people, but also to promote social progress and development. In summary, the background of Labor Education Month is multifaceted, including external factors such as historical, policy, and social backgrounds, as well as internal factors such as people's misconceptions about labor and distorted values.[2]At the same time, it is necessary to actively explore new models of labor education, incorporate labor education into the entire process of talent

cultivation, fully leverage the comprehensive educational role of labor education, and cultivate socialist builders and successors with comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor skills.

1.2. Research significance

Labor education is an important part of building an education system that comprehensively cultivates morality, intelligence, physical fitness, aesthetics, and labor skills. By participating in labor, students can cultivate moral emotions, broaden their horizons, exercise their bodies, and enhance their aesthetic abilities through practice [3]. This comprehensive educational approach helps students form a correct worldview, outlook on life, and values. The new era emphasizes the strategy of innovation driven development, and creative labor is the key to achieving this strategy. Through labor education, students can learn how to combine theoretical knowledge with practice, thereby stimulating their innovative thinking and creativity. This is of great significance for cultivating innovative talents for the future society [4]. Labor education helps cultivate students' sense of social responsibility and dedication. By participating in service-oriented and productive labor, students can experience the joy of contributing to others and society, thereby enhancing their sense of social responsibility. This sense of responsibility is a necessary quality for citizens in modern society. Labor education emphasizes the combination of hands and brains, knowledge and action, enabling students to acquire labor skills and cultivate labor literacy through practice. The improvement of this practical ability is crucial for students' future career and personal development. The Chinese nation has a fine tradition of being diligent in labor and skilled in creation. Through labor education, we can inherit and promote these excellent traditional cultures, enabling the younger generation to better understand and respect the value of labor. The current society is facing the problem of some teenagers not being able to work and underestimating labor. Strengthening labor education can help solve these problems, make students realize the importance of labor, and actively participate in labor. This helps cultivate their ability to live independently and solve problems [5].

1.3. Research Objectives

This study aims to explore new thinking in classroom management empowered by AI, especially the innovative application of labor education and practical courses. Taking Chengdu Neusoft College as an example, advanced AI teaching tools such as intelligent teaching assistants and online learning platforms will be introduced to optimize course design through big data analysis and improve teaching quality and efficiency [6]. At the same time, emphasis is placed on cultivating students' innovation ability and information literacy, integrating AI technology into the curriculum, and providing personalized practical experiences. In addition, utilizing AI technology to manage and monitor the entire process of labor education and practical courses, ensuring course quality and safety. We will also build a smart campus, promote home school cooperation, promote the integration of industry, academia and research, and provide students with high-quality educational resources and services. Ultimately, it is hoped that this research will provide new ideas and directions for educational reform and development in the context of the new era [7].

2. Literature Review

2.1. Application Status of AI Technology in Labor Education

AI technology is changing the traditional labor education model, bringing new possibilities and opportunities for labor education through intelligent management and monitoring, personalized practical experience, and the establishment of evaluation and feedback mechanisms. However, it is also important to note the challenges and issues that may arise during the application process, such as data security and privacy protection, technological updates and maintenance, etc. Therefore, it is necessary to continuously pay attention to and address these issues to ensure the effective application and sustainable development of AI technology in labor education [8].

2.2. The historical evolution of labor education and its educational value in the new era

Labor education originated in the early stages of human society and gradually integrated into social life with the development of agricultural society. After entering the industrial society, labor education faces new challenges and opportunities, with a focus on improving students' work abilities and adapting to the needs of social development. In modern society, labor education not only focuses on the cultivation of vocational skills, but also emphasizes the improvement of comprehensive qualities and the development of innovative abilities. In the context of the new era, labor education has been endowed with new missions and connotations, becoming one of the important ways to cultivate young people with ideals, courage to take on responsibilities, resilience, and willingness to strive in the new era. It helps cultivate students' innovative spirit and practical ability, enhance their sense of social responsibility and dedication, while addressing practical challenges and promoting personal development [9].

2.3. Relevant research results and case analysis at home and abroad

Labor education in the United States emphasizes practicality and innovation, allowing students to learn and grow through community service, career experiences, and other means. For example, some schools organize students to participate in community cleaning, environmental protection projects, etc., to cultivate their sense of social responsibility and citizenship. Germany's labor education is known for its rigor, emphasizing the cultivation of students' vocational skills and craftsmanship spirit. The "dual system" vocational education model in Germany closely integrates school education with corporate practice, allowing students to gain practical work experience while learning theoretical knowledge. This model has cultivated a large number of high-quality technical talents for Germany. Japan's labor education focuses on cultivating students' teamwork skills and discipline. Through collective activities, sports competitions, and other means, students learn to respect and support each other in teamwork, cultivating their sense of collective honor and belonging [10].

In recent years, China has also achieved significant results in labor education. More and more schools are beginning to attach importance to labor education, incorporating it into their curriculum system and carrying out a series of effective practical activities. For example, some schools offer labor skills courses that teach students basic household chores, handicrafts, and other skills; Some schools also organize students to participate in activities such as agricultural labor and community service, allowing them to experience the hardships and joys of labor in practice [11].

In addition, domestic scholars have also conducted in-depth research in the field of labor education. They explored the connotation, value, and implementation strategies of labor education from different perspectives, providing theoretical support for the practice of labor education. For example, some scholars have proposed that labor education should focus on cultivating students' innovative spirit and practical ability, allowing them to constantly explore and learn in practice [12].

3. Theoretical Framework

3.1. Labor Education Empowered by Artificial Intelligence

Artificial intelligence labor education theory is an emerging field that integrates artificial intelligence technology and labor education concepts, aiming to improve the efficiency, quality, and personalized level of labor education through intelligent means. With the rapid development of artificial intelligence technology, its application in the field of education is becoming increasingly widespread. The theory of artificial intelligence labor education is based on this background, exploring how to effectively integrate AI technology into labor education to promote students' comprehensive development. Labor education is an important way to cultivate students' practical abilities, innovative spirit, and social responsibility awareness. In the context of the new era, strengthening labor education is of great significance for cultivating socialist builders and successors with comprehensive development in morality, intelligence, physical fitness, aesthetics, and labor. The

core content of artificial intelligence labor education theory includes intelligent teaching assistance, practical ability cultivation, innovative thinking stimulation, and social responsibility awareness cultivation. By utilizing AI technologies such as intelligent teaching assistants and online learning platforms, personalized learning resources and teaching guidance can be provided to students; By simulating real labor scenarios, virtual laboratories, and other methods, students can engage in practical operations in a safe environment; Design challenging and innovative labor education projects that combine innovative applications of AI technology; Using AI technology to analyze social hot issues and labor market demands, guiding students to pay attention to social reality and future development. In order to effectively implement the theory of artificial intelligence labor education, it is necessary to strengthen teacher training, improve the curriculum system, enhance practical activities, and promote industry university research cooperation. Through these measures, the quality of labor education can be further improved, cultivating students' practical abilities, innovative spirit, and social responsibility awareness, injecting new vitality and motivation into talent cultivation in the new era.

3.2. Educational Innovation from the Perspective of Student Developmental Psychology

From the perspective of student developmental psychology, educational innovation emphasizes student-centered approach, fully considering individual differences, developmental stages, and active learning needs of students. By implementing personalized teaching, project-based learning, and situational teaching, we aim to stimulate students' interest and motivation in learning, and cultivate their practical abilities and innovative thinking. Meanwhile, educational innovation requires support from measures such as teacher training, policy support, and home school cooperation to ensure its smooth implementation and achieve good results. From the perspective of student developmental psychology, it is possible to better understand students' needs and developmental patterns, providing strong theoretical support and practical guidance for educational innovation.

4. New thinking on student classroom management empowered by AI

4.1. Personalized Learning Path Design

Through AI tools for student assessment, personalized learning path design for customized labor courses aims to meet the diverse needs of students and promote their comprehensive development. The design philosophy emphasizes student-centered approach, focuses on practical orientation, and ensures that the learning path is flexible and adaptable to individual differences. The design steps include requirement analysis, goal setting, resource integration, path planning, implementation and monitoring, as well as evaluation and feedback. By conducting in-depth analysis of students' interests and abilities, setting specific learning goals, integrating on campus and off campus resources, planning personalized learning paths, and regularly monitoring and adjusting. Suggestions for implementing strategies include strengthening teacher training, optimizing resource allocation, encouraging home school cooperation, emphasizing practical experience, and cultivating innovative spirit. This design helps to stimulate students' interest in learning, enhance their practical abilities and innovative thinking, and provide each student with a unique and productive learning experience.

4.2. Interactive Learning Experience

Develop interactive learning platforms that support AI, such as virtual laboratories, simulated scenarios, etc. The interactive learning experience of labor courses emphasizes the student-centered position, stimulating learning interest and creativity through teamwork, role-playing, problem-solving, and other methods, cultivating practical abilities and teamwork spirit. The implementation strategy includes group collaboration to complete tasks, playing different professional roles, setting challenges to encourage problem-solving, and timely feedback and guidance from teachers. The safeguard measures include teacher training, resource integration, and safety assurance. This teaching

model aims to create a positive and interesting learning atmosphere for students, promoting their comprehensive development.

4.3. Real time feedback and intervention

Real time feedback and intervention in labor education courses are crucial for improving teaching effectiveness and promoting students' comprehensive development. Through observation and recording, verbal feedback, and written feedback, teachers can timely understand students' learning situation, including knowledge mastery, skill proficiency, and emotional attitudes. Based on these real-time feedbacks, teachers can implement personalized guidance, such as providing additional exercises for students with unfamiliar skills, providing psychological counseling for students with negative emotions, and adjusting teaching strategies, such as changing the difficulty of teaching content, adjusting the pace, or adopting different teaching methods to meet the needs of students. In addition, strengthen cooperation between families and schools, jointly focus on student development, regularly provide feedback on learning progress to parents and listen to their opinions, and create a good atmosphere of home school coeducation. This real-time feedback and intervention mechanism helps to improve teaching quality, stimulate students' learning motivation, cultivate their practical ability and innovative spirit.

4.4. Teacher assisted decision-making

Develop a decision support system that integrates students' learning data, behavior analysis, and teaching feedback to provide teachers with an intuitive data visualization interface. In labor education courses, teacher assisted decision-making is a key link in improving teaching quality and optimizing students' learning experience. By collecting and analyzing students' learning data, teachers can understand their needs and provide scientific basis for teaching decisions. At the same time, peer communication and expert consultation are also important auxiliary decision-making methods, which help teachers learn from advanced experience, broaden their teaching horizons, and obtain professional advice for complex problems. In terms of implementation, schools can establish data platforms to support teacher decision-making, organize teaching and research activities to promote teacher cooperation, and introduce expert resources to provide guidance. These measures together constitute an effective teacher assisted decision-making mechanism, which helps to improve teaching effectiveness, stimulate students' learning motivation, and promote their comprehensive development.

5. Case Analysis of Labor Education and Practice Course at Chengdu Neusoft College

5.1. Activity Overview

Chengdu Neusoft College has set up a "Labor Month" and organized a series of themed educational activities to promote the spirit of labor, cultivate students' practical abilities and teamwork awareness. The activities include labor skills competitions, such as cooking, handicrafts, etc., to promote learning and enhance students' practical skills through competitions; Organize volunteer services, such as environmental protection and cleaning, community service, and enhance social responsibility; Invite model worker and industry experts to give lectures, share labor experience and stimulate students' labor enthusiasm; And establish a labor achievement display area to showcase outstanding works of students and enhance their sense of achievement. These activities enrich students' extracurricular life, provide a platform to showcase themselves, enable them to deeply understand the value of labor, learn to apply the knowledge and skills they have learned to practice, contribute to society, and enhance their sense of teamwork and collective honor, laying a solid foundation for their future learning and work.

5.2. Specific Applications of AI Empowerment

The application of AI technology in labor education and practical courses is becoming increasingly widespread, bringing many innovations and conveniences to teaching. Through intelligent assisted teaching, AI algorithms can analyze students' learning data and behavior patterns, customize personalized learning paths, provide real-time feedback and evaluation, and help students efficiently improve their skills. Virtual simulation training utilizes AI and VR technology to simulate real labor scenarios, provide a safe practice environment, and intelligently guide error correction. In terms of intelligent resource management, AI optimizes resource allocation, avoids waste, and recommends learning materials based on student preferences. In addition, AI can deeply analyze learning data, predict learning outcomes, provide decision support for teachers, and warn students of potential difficulties in advance. These applications not only improve teaching efficiency and quality, but also provide students with a more personalized and immersive learning experience, indicating the enormous potential of AI in future labor education.

5.3. Effectiveness Analysis

AI empowerment has had a significant impact on student classroom management and labor education. In classroom management, AI provides personalized learning paths and real-time feedback by analyzing student learning data, enhancing learning interest and efficiency, and reducing the burden on teachers. In labor education, AI enriches teaching methods, such as virtual simulation training, improves teaching quality, helps students master practical skills, and cultivates teamwork spirit and sense of responsibility. Overall, AI technology not only optimizes the teaching process, but also promotes the improvement of students' comprehensive quality, indicating a trend towards more intelligent and personalized education in the future.

5.4. Problems and Improvement Suggestions

AI empowered labor education faces challenges such as technological equipment and resource limitations, teacher skill challenges, student engagement issues, and lagging updates to teaching content. To improve, it is necessary to increase investment, enhance teachers' ability to apply AI technology, design interesting learning activities to increase students' interest, and closely track trends in AI technology to update teaching content and methods. Through these measures, the potential of AI in labor education can be fully utilized, cultivating students with innovative spirit and practical ability, while promoting educational equity and quality improvement.

6. Conclusion

The new thinking of student classroom management empowered by AI has profound significance in labor education. It has revolutionized traditional teaching methods, providing students with personalized, efficient, and effective learning experiences. By accurately identifying students' needs, AI technology can tailor learning plans to ensure that each student can grow at a pace that suits them. Intelligent teaching assistance reduces the burden on teachers, allowing them to focus more on instructional design and student guidance. At the same time, AI encourages students to actively explore, cultivate curiosity and thirst for knowledge, and promote innovative thinking and problem-solving abilities through applications such as virtual simulation training. In addition, AI technology breaks the limitations of time and space, allowing high-quality educational resources to be shared and promoting educational equity. In summary, the new thinking of student classroom management empowered by AI not only improves the teaching efficiency and quality of labor education, but also promotes the cultivation of students' personalized development, self-learning ability, and innovative spirit, injecting new vitality into the sustainable development and progress of the education industry.

References

[1] Guo H, Zhang F, Zhang F, et al.Design and Implementation of Cloud Platform Management System for Smart Classroom[C](Technical Committee on Control Theory, Chinese Association of Automation),(Chinese Association of Automation),(Systems Engineering Society of China)..College of Automation & College of Artificial Intelligence,Nanjing University of Posts and Telecommunications;,2024:6.DOI:10.26914/c.cnkihy.2024.029871.

[2] Liu Y, Shi L, Wang D. Exploration and Practice of Ideological and Political Education in Courses Based on OBE Concept:Taking the Course of "Coffee Tasting and Preparation" as an Example[C].Proceedings of the 9th International Conference on Contemporary Education, Social Sciences and Humanities.School of Tourism,Zhuhai College of Science and Technology;School of Marxism,Beijing Institute of Technology,Zhuhai;,2024:10.DOI:10.26914/c.cnkihy.2024.012959.

[3] Liang L. Research on Innovative Practice of Packaging Design Course Teaching[C]Proceedings of the 9th International Conference on Contemporary Education, Social Sciences and Humanities.Neusoft Institute Guangdong;2024: 9.DOI: 10.26914/c.cnkihy.2024.012965.

[4] Gao H, Li Q. The Value Implications of Xi Jinping's Important Discourse on Labor Education[C]. Proceedings of the 9th International Conference on Contemporary Education, Social Sciences and Humanities.Chenwu Township Government of Luoning County;Yongcheng Vocational College;,2024:5.DOI:10.26914/c.cnkihy.2024.012971.

[5] Chen Wang.Research and practice of integrating skills competition and course teaching of higher vocational colleges in the Guangdong-Hong Kong-Macao Greater Bay Area[C],2024: 8.DOI: 10.26914/c.cnkihy.2024.006599.

[6] Zhang F. The Necessity of Labor Education for Undergraduate College Students[C]. Proceedings of the 10th International Conference on Arts, Design and Contemporary Education (ICADCE 2024). Shandong Technology and Business University;2024: 6.DOI: 10.26914/c.cnkihy.2024.007113.

[7] Yang X. Integration of Labor Education into "Overall Ideological and Political Theory Course":Internal Logic,Realistic Dilemma and Practical Logic[C].Proceedings of the 4th International Conference on Education: Current Issues and Digital Technologies (ICECIDT 2024).Chongqing Medical and Pharmaceutical College;,2024:10.DOI:10.26914/c.cnkihy.2024.002064.

[8] Chen J. Research on Teaching Strategies for High School Art Comprehensive Practice Activity Course from the Perspective of Constructivism[C]. Proceedings of the 4th International Conference on Education: Current Issues and Digital Technologies (ICECIDT 2024). Huanggang Normal University;2024: 6.DOI: 10.26914/c.cnkihy.2024.002078.

[9] Lei D, Yang C. Classroom Management and Process Control in Translation Teaching[C]. School of Foreign Languages,Wuhan University of Technology;,2023:6.DOI:10.26914/c.cnkihy.2023.117903.

[10] Lv G, Sun H. Research on the Implementation of Integrating Aesthetic Education with Labor Education in Higher Technical and Vocational Normal Colleges in the New Era[C]//International Science and Culture Center for Academic Contacts (Moscow, Russia). Proceedings of the 4th International Conference on Education Studies: Experience and Innovation (ICESEI 2023). Department of Preschool Education.Jilin Engineering Normal University;2023: 5.DOI: 10.26914/c.cnkihy.2023.056854.

[11] Wang X. Analysis of the Role of Classroom Management in International Chinese Online Learning Courses[C]. Guangzhou City University of Technology;2023: 3.DOI: 10.26914/c.cnkihy.2023.091425.

[12] Zhang W, Ge F, Zhou X. Innovation and Practice of Labor Education for College Students under the Background of the New Era[C]. Qingdao Huanghai University;2023: 3.DOI: 10.26914/c.cnkihy.2023.091436.