Research on Labor Education Reform Relying on Computer

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Abstract. With the development of science and technology, our education has begun to enhance the quality of teaching continuously, which combines new network technologies. After the new curriculum reform, our education pay more attention to the reform and innovation of labor education. It also combine modern technology to continuously improve the effectiveness of labor teaching. After combining modern science and technology, labor teaching makes the labor courses more perfect in theory and practice. According to the current trend of student growth and social development in our country. If we want education reform to satisfy the teaching needs, we must continue to combine the current Internet technology to improve the development of teaching.

Keywords: Information Technology, Labor Education, Flipped Classroom, Integrated Curriculum

1. Introduction
The curriculum content of modern labor education involves not only industry and agriculture, but also business and service industries. It also adds modern scientific and technological creative labor content represented by information technology. By combining elementary school's developmental characteristics and student needs, we integrate information technology and labor education to carried out scientific curriculum design and teaching practice, which can promote the optimal development of students. We changed the traditional teaching mode of labor education and tried to develop VR immersive career experience courses and STEAM innovative practice courses. Under the overall structure of the school-based curriculum of labor education, we create a learning environment that "We can learn all the time and everywhere" [1].

2. Flipped classroom "micro courses"
Mobile Internet (MI for short) is an emerging business that uses mobile wireless communication methods to obtain services and services through smart mobile terminals. The mobile Internet is the mutual coverage of the Internet and mobile communications. It not only has the characteristics of immediacy, interactivity, and extensibility of the traditional Internet, but also has the advantages of portability, sending and receiving, and browsing information anytime and anywhere [2]. At this stage, with the help of some emerging media, mobile Internet technology is developing rapidly. People are using mobile media technology to communicate and communicate. With the establishment of these new
habits and the advent of the 4G era, relevant industry experts predict that mobile The Internet will become the most influential new media force in the 21st century.

3. Technological innovation

3.1 VR immersive career experience course
The immersive course uses virtual reality technology to break the limitations of time and space in the virtual experimental environment, and conduct three-dimensional and virtual observation and exploration of various objects ranging from cosmic celestial bodies to atomic particles, through virtual scenes and somatosensory interaction Function to simulate real scenes. Information technology empowers labor education. Introducing such novel learning methods into labor school-based courses and applying them in immersive courses of professional experience is conducive to expanding students' horizons and exploring the vast universe, micro world and real life in depth. For high-risk or non-daily occupational experiences (such as firefighting, disaster relief, etc.), only through language description and picture display, students cannot deeply understand its connotation and meaning. Many scenes remain in the imagination and cannot be personally experienced. The use of VR technology vividly displays various work scenarios, the grand universe and the micro world in front of students, and uses interactive technology to complete various professional experiences in various virtual environments, so that children can have a new learning experience Perception [3].

3.2 STEAM innovative practice courses
Students need to use their hands and brains in labor, which is an innovative activity. In the era of information technology, new changes have taken place in the form of labor, which is different from traditional labor that emphasizes manual labor. The innovative practical courses in the modern labor education curriculum use information technology as the technical means, project-based learning as the main learning method, and the curriculum as the carrier, integrating information technology, science, art, comprehensive practice and other subject knowledge to cultivate students' imagination, Creativity and problem-solving ability to achieve the improvement of innovation ability.

1."Little Programmer" course We integrate AI+ programming education with labor education. Programming education has a distinct new era attribute and has broad prospects for future development. Its integration can further strengthen the technological content of labor education, and students can better design intelligent works through programming. The integrated setting of mental labor due to programming education simplifies part of the manual labor process. Compared with traditional labor education courses, the emerging modern labor education integrated with information technology has many advantages: easy to operate, transferable, effective, and innovative. Programming is no longer a boring and monotonous code writing, but an interesting skill that is beneficial to life and learning. After mobilizing the students' sense of participation, the students showed a wealth of creativity and observation, demonstrated unique personalities and potentials, and naturally cultivated labor cognition and habits. We closely follow the hotspots of life in reality, select themes that are closely integrated with labor education, realize the integration of multi-disciplinary knowledge, and cultivate students' comprehensive literacy [4]. At present, the multi-topic teaching tasks that have been planned and practiced include: garbage sorting, automatic driving, cooking master, etc., which are closely following the hot spots of life, electronic concerts, magical drawing boards, happy farms, fishing experts, architects, etc. for interdisciplinary projects. In the labor education practice activities combined with programming, students innovate independently and turn the creative concepts generated by combining life experience and imagination into experience and operable games or animations, which greatly stimulates the happiness of labor and the sense of social responsibility of students.

2. "Robot Mobilization" course The robot course combines the programming of robots as the main content to infiltrate students' logical thinking and engineering thinking; encourage students to explore the use of robots and automation-related tools to design and complete works, expand students' horizons, and improve Its application level. Through the development of practical activities such as robot building,
programming, and creativity, students' hands-on ability will be improved, students' innovative thinking will be developed, and students' personal expertise will be developed. In the creation of engineering challenges or theme projects, students have designed a variety of robots to participate in rescue operations or green environmental protection, such as fire fighting heroes, environmental protection guards, etc [5].

3."3D Smart Manufacturing" course The "3D Smart Manufacturing" course offered by the school allows students to discover problems independently based on real life and experience interests, and comprehensively use knowledge of 3D modeling and structural design, programming, smart hardware, etc. to complete creative products The design, development, promotion and sharing of the company has become a new generation of professionalism and maker spirit. 3D printing and laser engraving technology promote the development of a new type of labor education, not only can help students to master the subject knowledge more deeply, more importantly, it breaks through the technical barrier of ordinary people in design and creation activities, and realizes their creative ideas for students Provides powerful tools that are conducive to improving students' creative thinking and interdisciplinary thinking, as well as students' practical ability. 3D printing and laser engraving technology brings boring courses to life, visualizes students' works, effectively captures students' vision and touch, so as to better understand the courses. The "3D Smart Manufacturing" course is based on cultivating students' 3D design interests and students' innovative spirit, and explores the combination of 3D model design, 3D printing technology and laser engraving skills with new types of labor as a bridge to actively explore and cultivate a group of outstanding Innovative little expert. Starting from real life and imagining the future, students in the middle and high grades of elementary school use 3D software to design, and finally produce exquisite works [6]. In order to better integrate information-based labor education, we selected relevant topics with high students' interest, such as childhood toys, excellent stationery, creative home furnishings, and dream campuses, through a survey of students. Such targeted information-based labor courses not only meet the daily life and hotspots of science and technology, but also arouse students' interest in learning and beautifying life by participating in labor creation.

4. Practical reflection

4.1 Foundation precipitation

In the development and practice of the IT-enabled labor education integration curriculum, we must pay attention to the cultivation of students' basic labor ability and basic attitudes, and should reflect the universality and foundation of compulsory education, obey and serve the overall development of students , Active development, diversified development, and use this as the fundamental starting point to lay the foundation for the life-long development of students. Therefore, in the methods and content of curriculum implementation, the physical and psychological development level and age characteristics of primary school students should be fully considered, and attention should be paid to the convergence of educational content and the coordination of educational methods in various age groups. While information technology has given new vitality to labor education, it has also deepened the difficulty of the nature of labor education technology. Therefore, we must not blindly require students to complete high-tech work results, but must build a foundation to precipitate basic hands-on skills and develop the ability to discover and solve problems, and help students sort out their ideas and cultivate scientific thinking, so that students can face The future challenges the ability to develop for life [7].

4.2 Comprehensive development

Information technology empowered labor education integration courses need to pay attention to the overall planning and organic coordination of learning activities in various fields. On the basis of ensuring that the basic knowledge, skills and attitudes of labor education are achieved, positive labor attitudes and correct values are infiltrated into all aspects of teaching, so as to provide students with more opportunities for independent exploration and diversified practice. The main types of integrated curriculum activities currently developed and practiced include: information collection, immersive
experience, discussion simulation; manual production, model assembly, work design, product promotion; discussion on project establishment, conceptual design, technical experimentation, and work appreciation [8]. We adopt the method of combining concentrated and scattered hours, and in and out of class, to arrange integrated curriculum practice. In the course of curriculum development and practice, we also need to respect students' individuality, autonomy, and creativity, pay attention to students at different levels, help them play their strengths, and guide students to scientifically and orderly collaborate with each other to complete projects.

5. Improve the evaluation mechanism of labor education to ensure effective implementation of labor education
The school continues to improve the labor education evaluation mechanism, play the role of education guidance and quality monitoring in the course implementation process, continuously improve the quality of education, and ensure the effective implementation of labor education. The evaluation of labor courses is divided into two parts: process evaluation and summative evaluation [9,10]. The process evaluation table is shown in Table 1.

| Evaluation item       | Key assessment points                                      | Scoring |
|-----------------------|------------------------------------------------------------|---------|
| Time concept          | Punctuality, no absences, lateness, etc.                    | 10      |
| Focus on learning     | Be well prepared and complete tasks on time                  | 20      |
| Cooperative inquiry   | Have a sense of cooperation, teamwork and scientific inquiry spirit | 30      |
| Innovative spirit     | Tool innovation, labor mode and method innovation           | 10      |
| safety consciousness  | Able to use labor tools safely                              | 10      |

The summative evaluation is shown in Table 2.

| Evaluation item | Observation point                                      | excellent | good | general |
|-----------------|-------------------------------------------------------|-----------|------|---------|
| Originality     | Is the result original? How much is the original weight? | 4         | 3    | 2       |
| theme           | Is the subject clear? Does it come from labor curriculum practice? | 4         | 3    | 2       |
| content         | Is the content exciting? Is it rich?                   | 4         | 3    | 2       |
| form            | Are there any features? Is it both pictures and texts? | 4         | 3    | 2       |
| expression      | Is the language clear?                                 | 4         | 3    | 2       |

6. Conclusion
At present, labor education still needs continuous improvement and perfect curriculum in our country. In the future, we must attach importance to research in this area so that we can establish an incentive, developmental, diversified and diverse evaluation system. In this way, we can promote and guarantee the development of education curriculum reform.

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