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Research on Optimization Strategies for Integrating "Mass Entrepreneurship and Innovation" Education into Computer-Related Professional Courses in Vocational Schools

Jingxuan Wu*

School of Information, Xinjiang Agricultural Vocational and Technical University, Changji 831100, Xinjiang, China

**Author to whom correspondence should be addressed.*

Abstract: With the in-depth advancement of vocational education reform, the concept of "Mass Entrepreneurship and Innovation" has emerged at the historic moment. Integrating "Mass Entrepreneurship and Innovation" education into the teaching of computer-related professional courses in vocational schools is conducive to cultivating high-quality applied talents. Based on this, this paper deeply analyzes the connotation and characteristics of "Mass Entrepreneurship and Innovation" education, and examines the current status and existing problems of integrating such education into computer-related professional courses. Furthermore, it proposes optimization strategies from aspects including the formulation of course objectives, the reconstruction of teaching content, the innovation of teaching methods, the development of teaching staff, and the construction of practical platforms. The purpose is to enhance students' innovative thinking, entrepreneurial capabilities, and professional skills, and to provide professional talents with "Mass Entrepreneurship and Innovation" literacy for the development of the computer industry.

Keywords: "Mass Entrepreneurship and Innovation" education; Vocational schools; Computer-related majors; Curriculum optimization; Strategies

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1. Introduction

In response to the rapid progress of science and technology, the need for talents specializing in information technology has risen significantly in recent years . The teaching of computer majors in vocational schools undertakes the important responsibility of cultivating high-skilled and high-quality talents for society. In the context of "Mass Entrepreneurship and Innovation", teachers should not only focus on cultivating students' professional quality and abilities but also develop their innovation and entrepreneurship capabilities. However, at the current stage, computer majors in vocational schools in China have not attached sufficient importance

to innovation and entrepreneurship teaching. This neglect of innovation and entrepreneurship education is not conducive to students' all-round development.

2. Overview of "Innovation and Entrepreneurship" education

"Innovation and Entrepreneurship" education aims to cultivate talents with innovation and entrepreneurship literacy as well as an innovative spirit. Its content includes the cultivation of entrepreneurial awareness, entrepreneurial spirit, and entrepreneurial capabilities, which requires educators to carry out education in a hierarchical and phased manner. The value of "Innovation and Entrepreneurship" education lies in fostering talents with an innovative spirit; it is not merely about conducting entrepreneurial course teaching and skill training, or providing students with practical learning opportunities. The implementation of "Innovation and Entrepreneurship" education helps students engage in independent entrepreneurship in their future careers, exert their personal innovative practical abilities, and contribute to promoting economic development and social progress [1].

"Innovation and Entrepreneurship" education is not limited to innovation and entrepreneurship education in a specific discipline or field; it covers various disciplinary fields and requires students to possess multi-faceted knowledge and skills. This also means that "Innovation and Entrepreneurship" education needs to break the limitations of disciplines and teaching, integrate knowledge and skills from different fields, and cultivate students' comprehensive quality capabilities and innovative practical abilities. "Innovation and Entrepreneurship" education not only requires the teaching of theoretical knowledge, but more importantly, enables students to develop practical application capabilities and improve their own innovative literacy through practical means. This requires the full integration of theory and practice in educational work, allowing students to participate in practical exploration so as to achieve development and progress. "Innovation and Entrepreneurship" education is a systematic process that needs to comprehensively cultivate students' quality and capabilities from the perspectives of cognition, skills, and other aspects [2].

3. Current situation of integrating "Innovation and Entrepreneurship" education into computer-related professional courses in vocational schools

In China's education field, innovation and entrepreneurship education has developed against the background of the transformation of educational forms. However, at present, the integration of innovation and entrepreneurship education with China's overall education system still needs to be improved, which requires strengthening research in this area to identify existing problems.

3.1. Lack of the concept of cultivating innovation and entrepreneurship capabilities

From the current situation of computer professional teaching in higher vocational colleges in China, these colleges do not attach importance to the cultivation of students' innovation and entrepreneurship capabilities, have a shallow understanding of the concept of cultivating such capabilities, and fail to establish a correct concept for cultivating innovation and entrepreneurship capabilities [3]. Traditional teaching models are still adopted in educational work, which makes it difficult for education to achieve good results. There is a certain deviation between educational work and the talent needs of the industry, which is also not conducive to students' future employment and development.

3.2. Low effectiveness of professional teaching quality management

Under the traditional teaching model, computer professional teaching in higher vocational colleges emphasizes theory over practice. In the process of talent cultivation, there is a problem of imperfect teaching quality management systems. Greater emphasis is placed on the systematic implementation of teaching content, which cannot be consistent with the innovative concepts of the times and is not conducive to in-depth analysis of social phenomena, thus hindering students' development. Moreover, the content of computer courses in higher vocational colleges is relatively outdated, and teaching focuses more on the explanation of theoretical knowledge with insufficient practicality, which also makes it difficult to improve the effectiveness of teaching [4]. In addition, teaching quality management faces problems such as difficulty in designing evaluation indicators for management effectiveness and difficulty in conducting objective evaluations. Higher vocational colleges do not conduct overall supervision and evaluation of the computer market, which also leads to inconsistency between the vocational cultivation of computer students in higher vocational colleges and the development needs of the market.

3.3. Weak teaching staff in computer majors of higher vocational colleges

Due to the relatively fast update speed of computer technology, many computers professional teachers in higher vocational colleges are relatively young at this stage, and their teaching experience is insufficient. At the same time, many computers professional teachers in higher vocational colleges only receive short-term training before taking up their posts and have not received systematic and comprehensive learning in computer science. This also causes major problems in teaching work, leading to deviations in the concept, positioning, and methods of talent cultivation. Some teachers in higher vocational colleges have high academic qualifications and professional titles, and their teaching and research capabilities are relatively strong, but they are insufficient in innovation and entrepreneurship education capabilities and lack the pioneering ability in the computer industry [5].

3.4. Insufficient atmosphere for innovation and entrepreneurship

At this stage in China, a sound innovation and entrepreneurship environment has not been built, which limits the cultivation of innovation and entrepreneurship capabilities in higher vocational colleges. Therefore, it is difficult for computer majors in higher vocational colleges to attach importance to innovation and entrepreneurship education in their educational work, which is also not conducive to students' development [6]. In addition, entrepreneurship requires certain resources and funds as external support, but most graduates find it difficult to obtain sufficient financial resources, which is not conducive to the development of students' initial entrepreneurial work.

4. Measures for integrating "Mass Entrepreneurship and Innovation" education into computer-related professional courses in vocational schools

4.1. Grasp the market pulse to optimize professional orientation

With the rapid development of information technology, the computer industry has achieved upgrading and iteration, and the requirements for talents in the computer employment market are constantly changing. Therefore, if higher vocational colleges want to transform their talent training models, they need to keep up with market changes, adapt to the development needs of the industry in the new era, and properly position the development of computer majors. At this stage, the computer industry market focuses more on cultivating

talents with strong practical operation capabilities and high professionalism. However, in the current teaching process of computer majors in higher vocational colleges, it is difficult to fully integrate theory and practice. For this reason, higher vocational colleges should establish a more complete professional curriculum system, optimize computer theoretical knowledge, and thereby improve students' practical application capabilities. Moreover, adding relevant career guidance courses to the professional curriculum also helps students clarify their future career directions, so as to better solve the problems they encounter in the learning process [7,8].

4.2. Attach importance to the construction of innovation and entrepreneurship education concepts

Higher vocational colleges should clarify the market positioning of computer majors according to the development of the industry, constantly adjust and transform the traditional educational ideas and concepts of computer majors, and further enhance students' sense of innovation and innovation and entrepreneurship capabilities. In order to improve teachers' recognition and understanding of "Mass Entrepreneurship and Innovation" education, colleges can organize teachers to actively participate in various training and learning activities, so as to deeply understand the basic concepts, purposes, significances and methods of "Mass Entrepreneurship and Innovation" education. At the same time, schools should also encourage teachers to understand the latest research results by participating in academic conferences, seminars and other methods, so as to continuously improve their own level of educational concepts. Schools can formulate a more complete innovation and entrepreneurship education system to ensure the effective penetration of "Mass Entrepreneurship and Innovation" education concepts. For students, it is particularly crucial to improve their awareness of the implementation of "Mass Entrepreneurship and Innovation" education [9,10]. To this end, teachers can introduce cases of school graduates to help students understand and recognize the important value of "Mass Entrepreneurship and Innovation" education, thereby stimulating their enthusiasm for entrepreneurship. Entrepreneurs and investors can be invited to share their entrepreneurial experiences with students, allowing students to understand the importance of entrepreneurship. At the same time, students can be organized to participate in various innovation and entrepreneurship projects, develop programs with market prospects, and enable students to recognize the value of "Mass Entrepreneurship and Innovation" education in practical operations [11].

4.3. Build a high-quality integrated teaching staff

In the process of computer professional teaching, strengthening educational reform and integrating the "Mass Entrepreneurship and Innovation" education model not only requires the construction of a more complete curriculum education system, but also needs to build a more reasonable teaching staff system. The teaching staff should have a strong sense of innovation and entrepreneurial thinking, possess certain practical application capabilities, and be able to provide overall and comprehensive guidance to students. Therefore, this requires vocational colleges to take a series of measures to build an integrated teaching staff [12]. First of all, conduct innovation and entrepreneurship education and training for all teachers, organize teachers to participate in relevant seminars and training courses, encourage teachers to conduct on-site inspections in enterprises, and actively invite entrepreneurs with entrepreneurial experience to give lectures in schools. A series of these measures help teachers strengthen their own learning awareness and form a good ability to guide innovation and entrepreneurship. Secondly, schools can hire entrepreneurs and investors with rich entrepreneurial experience as part-time tutors. These tutors often have more abundant teaching and guidance experience and

can provide more accurate and comprehensive guidance to students. At the same time, they can tell students about their experiences in the entrepreneurial process, so that students can strengthen their understanding, master entrepreneurial skills, and further deeply understand the important significance of innovation and entrepreneurship [13]. Such practical activities also help teachers in schools to deeply understand the process of innovation and entrepreneurship, improve their own professional capabilities, and better carry out teaching work.

4.4. Strengthening the construction of an educational environment for innovation and entrepreneurship

Funding is a prerequisite guarantee for promoting students' entrepreneurship. Therefore, the government should provide more abundant resources and funds as support, and strengthen the follow-up work of entrepreneurship training. Higher vocational colleges should also create a favorable cultural environment for innovation and entrepreneurship, organize students to actively participate in entrepreneurship competitions and knowledge contests, so as to improve students' comprehensive quality and abilities, accumulate more experience for their entrepreneurial endeavors, and hold innovation and entrepreneurship lectures to further stimulate students' enthusiasm for entrepreneurship. At this stage, college clubs feature a diversified form; thus, colleges should establish entrepreneurial clubs and organize club activities to cultivate students' innovation and entrepreneurship capabilities. Schools can strengthen cooperation with schools and enterprises in other regions, or actively participate in provincial and national special activities related to innovation and entrepreneurship, providing students with more high-level practical learning opportunities. This series of activities also helps students enhance their own innovation and entrepreneurship capabilities, gain more support and recognition, and promote their personal development [14].

4.5. Enhancing the construction of computer major curriculum system

In computer curriculum teaching, the focus should not be limited to knowledge instruction; instead, it is necessary to supplement content related to innovation and entrepreneurship. This ensures the effective integration of professional teaching content and innovation and entrepreneurship knowledge, further reflecting the value of innovation and entrepreneurship education. Among various approaches, classroom teaching serves as the main method for talent cultivation. In computer professional teaching, teachers should play their leading role and further highlight the dominant position of students. Schools should actively offer courses related to innovation and entrepreneurship to help students master the basic knowledge and skills in the field of innovation and entrepreneurship. The offering of these courses also helps students fully understand the concepts related to entrepreneurship and give play to their own creativity and innovative thinking. Teachers should also compile corresponding teaching materials and lesson plans, enabling them to better integrate innovation and entrepreneurship education into daily teaching and helping students fully understand and master the knowledge and skills in the field of innovation and entrepreneurship. In addition, schools should build innovation and entrepreneurship laboratories to provide students with more opportunities for practical participation, so that students can consolidate the knowledge they have learned through practical means. Laboratories should focus on practicality and innovation, allowing students to complete practical operations and project practices, thereby improving their practical application capabilities. At the same time, it is also necessary to pay attention to the close integration between computer courses and the content of other disciplines, and build an interdisciplinary teaching system to further enhance students' practical application capabilities [15]. During the teaching process,

the adoption of heuristic teaching also helps students achieve innovative development of thinking, enabling them to fully recognize different fields of their own development and thus not be limited to a single aspect. For example, computer majors can establish cooperative relationships with computer enterprises, introduce corresponding practical projects, and let students design relevant websites for enterprises or create computer sales platforms. Another example is that schools can set up a "Internet + industrial development" model in curriculum teaching, encouraging students to give play to their professional advantages, further explore new methods of professional teaching, and change the specific direction of employment.

5. Conclusion

To sum up, integrating "innovation and entrepreneurship" education into the teaching of computer majors in higher vocational colleges is conducive to the development of students' innovation and entrepreneurship capabilities and enhances their social competitiveness. In practical teaching, teachers can take a series of measures to improve the effectiveness of innovation and entrepreneurship education, such as grasping the pulse of the market to optimize professional positioning, attaching importance to the construction of innovation and entrepreneurship education concepts, building a high-quality integrated teaching staff, strengthening the construction of an educational environment for innovation and entrepreneurship, and enhancing the construction of the computer major curriculum system.

Disclosure statement

The author declares no conflict of interest.

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