

Promoting Social Innovation through the Development of Vocational Education

Jintao Zhuang^{1, a}

¹Shanghai Civil Aviation College, Shanghai 200232, China.

^azhuangjintao@shcac.edu.cn

Abstract. Promoting social innovation through vocational education is becoming increasingly vital in today's rapidly changing world. Vocational education plays an important role in equipping individuals with the skills, knowledge, and mindset necessary to create innovative solutions for social issues. Various strategies and approaches that can be employed within vocational education to foster social innovation, such as online learning and college-enterprise cooperation. While the benefits and impacts of integrating these strategies into vocational education were demonstrated. Furthermore, a series of methods on innovation of online learning have been proposed to enhance the quality of vocational education. Overall, this paper underlines the significance of vocational education as a catalyst for social innovation and emphasizes the need to prioritize its integration into educational systems worldwide.

Keywords: vocational education; online learning; college-enterprise cooperation; social innovation.

1. Introduction

Vocational education is an integral part of the national education system and serves as a crucial foundation in China's modernization efforts. It is responsible for nurturing technical and skilled talent, fostering employment, entrepreneurship, and innovation, and driving the advancement of China's manufacturing and service sectors. As the economy transitions towards a new stage of high-quality development, vocational education itself must continuously progress to contribute to the nation's innovative growth.

China has a substantial number of vocational colleges, which provide a great potential in promoting social innovation and national competitiveness. According to the classification by Ministry of Education, vocational colleges are divided into three categories: vocational technical colleges, secondary vocational schools, and vocational high schools. Generally speaking, vocational colleges offering 3-4 years associate degree programs, depending on the subject and its curriculum. As of the end of 2021, there were approximately 3,500 vocational colleges in the country.^[1] Besides, vocational education in China has a large student population, there were over 28 million students enrolled in vocational colleges nationwide by 2021. Vocational education equips students with the skills and knowledge required for employment in various industries, including but not limited to industrial manufacturing, construction engineering, information technology, commerce and logistics, tourism services, medical care and nursing, agriculture and animal husbandry, and automotive maintenance.^[2] It's important to note that the distribution of vocational education may vary based on regional development disparities, economic conditions and government policies. Some major cities and economically developed regions in China have more advanced vocational education systems. While rural areas have fewer vocational education resources comparatively. To address the imbalance in rural talent development, the government has implemented policies to encourage the development of vocational education in rural areas.^[3-4]

In recent years, the Chinese government has placed great importance on the development of vocational education and implemented a series of policy measures to enhance its quality. These measures include improving the policy status of vocational education, strengthening teacher training, reforming vocational education content and teaching methods, promoting industry-academia collaboration, and encouraging innovation and entrepreneurship. These efforts aim to elevate the quality and status of vocational education, meeting the diverse talent demands of society.^[5] As a

result, these students from vocational institutions will play an important role in driving social innovation.

2. Self-innovation in vocational education

2.1 Raising awareness of the development of vocational education

Vocational education is an important component of the education system and, like general education, it provides a crucial foundation for personal development and realizing one's potential. The difference between vocational education and regular higher education lies in the objectives of talent cultivation and the training approaches: the former places more emphasis on practical education and market-oriented employment, while the latter focuses more on general education and preparing students for further academic pursuits at universities.^[6-8] However, both share the same essence, which is a student-centered development philosophy that promotes lifelong learning and comprehensive growth. As education modernization progresses, the differences between vocational education and regular higher education are continuously narrowing. Therefore, it is first and foremost necessary for the entire society to have a correct perception and understanding of vocational education. In addition, vocational colleges must actively embrace change and proactively transform themselves. It is essential to adhere to the right direction and strike a balance between employment, further education, and integration into society. By closely connecting innovative ideas with college development, vocational colleges can effectively address these relationships.

2.2 Online learning is an effective way to cultivate innovative talents

2.2.1 The advantages of online learning

Online learning refers to a learning mode in which learners use a learning platform, through the Internet or mobile networks, to acquire knowledge and engage in teacher-student and student-student interactions. Due to its advantages of not being restricted by learning space and time, online learning has become one of the common learning methods for students in vocational colleges. Teachers of various disciplines conduct corresponding online teaching based on the characteristics of their subjects. The existence of online learning ensures that students can progress in their studies without being affected by any circumstances and acquire the necessary professional skills within the designated semester. Thus a large number of highly skilled and qualified professionals were cultivated, which can effectively promote the optimization of industrial structure. It also serves as an important driving force for accelerating the transforming of our society.

2.2.2 Innovation of online learning in vocational education

Online learning is powerful and convenient, and it has become a significant driving force for the development of vocational education. However, it also presents certain challenges. For instance, the lack of face-to-face interaction weakens the influence of educators on the learners. Therefore, online learning imposes new requirements on educators to innovate their teaching methods and meet the learning needs of learners. For example, collecting feedback from students regularly to identify areas for improvement in online courses and platforms. Or using data analytics and learning analytics to analyze student performance and engagement to iteratively enhance the online learning experience. Furthermore, educators must creatively and flexibly utilize various teaching methods during the course design phase, designing courses that are both novel and appealing while also meeting the learners' needs to enhance their vocational skills. Ultimately, this will lead to smoother knowledge acquisition for learners and an improvement in their vocational skill levels.

2.3 Enhancing career guidance and consultation for students

To enhance career guidance and consultation for students, it is crucial to employ a comprehensive approach as early as possible. Firstly, starting career exploration at an early stage allows students to gain awareness of various career options, understand the required skills, and

explore their interests. Individualized career assessments can then be conducted, utilizing tools and professional guidance counselors to help students identify their strengths, interests, values, and personality traits, thus guiding them towards suitable career paths. Besides, incorporating one-on-one counseling sessions is essential for providing personalized guidance. These sessions can assist students in exploring potential career paths, understanding labor market trends, and setting achievable career goals. Furthermore, organizing career workshops and seminars on topics such as resume writing, interview skills, networking and job search strategies can further equip students with relevant career-related knowledge and skills.

Also, vocational colleges themselves can create an online career portal or platform to collect and share valuable resource. This platform can offer career assessments, job market information, career exploration tools, and links to articles and websites. Ensuring its accessibility and regular updates will enable students to access the latest information at their convenience. By implementing these strategies, the colleges and career guidance professionals can offer comprehensive support, enabling students to make informed career decisions, develop necessary skills, and effectively navigate their career journeys. On the other side, students who are nurtured under these innovative vocational education models can integrate into the company more quickly, understand the responsibilities of their positions and provide better service to the society, leading to the promotion of social innovation.

3. College-enterprise cooperation drives social innovation

For many vocational colleges, establishing connections with local businesses and industries is another win-win approach.^[9-12] These partnerships can create opportunities for internships, job shadowing, and mentorship programs, allowing students to gain practical experience and insights into their chosen career fields. There are several advantages for college-enterprise cooperation:

- 1) With the cooperation between vocational colleges and companies, teachers can be voluntarily assigned to the company and gaining practical knowledge. For companies, dispatching technicians as instructors to vocational colleges also help the students to improve their professional skills through internship. In addition, companies provide research projects to colleges, which mobilizing teachers' participation in product development and research project application, thus improving research and teaching capabilities of the educators in vocational colleges.
- 2) colleges and companies possess different materials, information, and human resources, while sharing these resources can save a significant amount of social costs. The participation in the company allows students to venture beyond the classroom and step onto the production line, thereby bridging the gap between theoretical knowledge and practical experience. In contrast, colleges can also provide vocational training to employees, enhancing their knowledge and literacy.
- 3) Based on the interests and development needs of multiple cooperating parties, vocational colleges integrate and share resources from the government, industry, and companies. They actively leverage the advantages of each party in industry-college-enterprise collaboration, establish a coordinated mechanism for running vocational education, and fully mobilize the role of relevant stakeholders in group-based education. This enhances internal cohesion and social competitiveness, achieving intensive and sustainable development of vocational education.

In summary, college-enterprise cooperation enables companies to efficiently hire talented students with relevant professional skills from the vocational colleges, resulting in significant savings in transaction, searching and information costs. Additionally, it promotes the integration of character development and skill-based education, enhancing the level of human resource development within companies. As college-enterprise cooperation involves the participation of company employees in teaching, it contributes to the creation of an innovative and learning-oriented

business culture. Lastly, participating in college-enterprise cooperation can help companies establish a positive brand image.

4. Summary

In conclusion, promoting social innovation through the development of vocational education is a crucial step towards addressing the ever-evolving demands of society. Firstly, by optimizing online learning, we can fully unleash the powerful features of online learning and promote the innovative development of vocational education. Moreover, by fostering collaboration between colleges and enterprises, vocational education can effectively cultivate skilled talent, bridge the gap between theory and practice, and contribute to the overall development of industries. Through college-enterprise cooperation, businesses can benefit from the recruitment of competent professionals, cost savings, and the establishment of a positive brand image. Moreover, vocational education plays a pivotal role in enhancing the quality of human resources and building a culture of continuous learning and innovation within organizations. By harnessing the synergies between vocational education and social innovation, we can pave the way for sustainable development and meet the diverse needs of a rapidly changing world.

References

- [1] Yi Yang. Analysis on the Dilemma Development Strategies of Higher Vocational Education in China. Proceedings of 4th International Workshop on Education Reform and Social Sciences, 2021, 249-256.
- [2] Xia Liu. Digital-intelligent Transformation of Vocational Education: Practice and Rethinking of Chengdu's "One Industrial Park-One College" Mode. Proceedings of the 2nd Conference on Education, Language and Intercultural Communication, 2022, 121-126.
- [3] Weimin Yuan, Yajuan Wang. The Development of Vocational Education and Training in China. Proceedings of the First International Conference on Education: Current Issues and Digital Technologies, 2021, 376-384.
- [4] Shuang Jiang. Research on the Construction of Learning Cities Empowered by the Integrated Development of Open Education and Vocational Education. Proceedings of the 2nd International Conference on Education: Current Issues and Digital Technologies, 2022, 754-761.
- [5] Fei Lv. Research on the Countermeasures and Development of Vocational Education under the Background of Artificial Intelligence. Proceedings of 2022 2nd International Conference on Higher Education Development and Information Technology Innovation, 2022, 57-59.
- [6] Wenliang Jin. Several Teaching Methods Suitable for Vocational Education. Proceedings of 2022 the 6th International Conference on Scientific and Technological Innovation and Educational Development, 2022, 774-776.
- [7] Harris R, Simons M, Hill D, et al. The Changing Role of Staff Development for Teachers and Trainers in Vocational Education and Training. National Centre for Vocational Education Research, 2001.
- [8] Ogbuanya T C, Shodipe T O. Workplace learning for pre - service teachers' practice and quality teaching and learning in technical vocational education and training: key to professional development. The Journal of Workplace Learning, 2022, (4): 34.
- [9] Tang Linwei. Research on long-term mechanism of school-enterprise cooperation in higher vocational education: the perspective of bourdieu's field theory. Modern Education Management, 2013, (6).
- [10] Geng Jie. Review and Prospect of research on school-enterprise cooperation in Vocational Education since Reform and opening up. Journal of Tianjin Academy of Education and Science, 2013, (1).
- [11] Wu Zhilun, Lu Yan. Construction of long-term mechanism of vocational school-enterprise cooperation based on "win-win". Continuing Education, 2010, 24(12).
- [12] Yin Jing. Discussion on the measures of constructing long-term mechanism of deepening school-enterprise cooperation in vocational education. Proceedings of 2022 the 6th International Conference on Scientific and Technological Innovation and Educational Development. 2022, 964-966.