

Exploration on the growth system of technical and skilled talents based on the idea of sustainable development

—Taking Chengdu aviation vocational and Technical College as an example

Xiaomin Jiang Yingdan Li

Chengdu Aviation Vocational and Technical College, Chengdu 610100, China

Abstract: vocational education is facing new challenges and new development. Technical and skilled talents should conform to the form, carry out the change of education concept from knowledge-based to people-oriented, and establish the core quality based on supporting students' lifelong development and adapting to the requirements of the times. This paper analyzes the problems, essential elements and implementation path of the growth system of technical and skilled talents. Taking Chengdu aviation vocational and Technical College as an example, it discusses the growth system to promote the sustainable development of technical and skilled talents. As one of the projects of "1235a" collaborative education mode, the system has achieved remarkable results, It provides ideas and references for the construction of the growth system of technical skilled talents in Vocational Education in the new era.

Key words: sustainable development; Technical and skilled personnel; Growth system

As an important type of higher education, higher vocational education plays an active role in the construction and development of modern economy and society. With the development of the new era, the Internet, big data, artificial intelligence, etc. are increasingly changing the world, and the demand for talents from all walks of life is changing with each passing day, which also urges vocational education to accelerate the transformation of the cultivation of technical and skilled talents in terms of educational philosophy, teaching mode, evaluation system, etc. Among them, the ability of sustainable development has become an important measure of promoting the high-quality development of vocational education, and the cultivation of the ability of sustainable development of technical and skilled talents has also become an important teaching reform and educational practice topic in vocational education.

1. Question raising

1.1 The logical starting point of the transformation of Vocational Education

Since 2020, vocational education in various countries has faced new challenges and new development, and has higher requirements for the improvement and consolidation of the ability of skilled talents. In 2022, the new policy brief "transforming higher education institutions into lifelong learning institutions" of the UNESCO Institute for lifelong learning proposed that national governments should support the institutionalization of lifelong learning through policies and regulations, Enable the whole people to study for life. In China, vocational education is taking an unprecedented important position. The report of the 20th National Congress of the Communist Party of China proposed to "optimize the positioning of vocational education types". The newly revised vocational education law was voted on and officially implemented. It adheres to people-oriented, ability first, quality first, integrity and innovation, so that students with different endowments and needs can choose many times and become diverse talents. The era has given the environment for the talents with technical skills to become talented and brilliant. It also gives high requirements for the cultivation of technical talents in vocational education, that is, to follow the laws of vocational education, grasp the characteristics of vocational education students, and establish the core quality based on supporting students' lifelong development and adapting to the requirements of the times, Promote the sustainable development of technical and skilled talents and the potential of shaping a better future society.

1.2 The practical significance of human sustainable development

People's sustainable development is to focus on people's all-round development, acquire the ability to meet the needs of personal development, coordinate the development of physical and mental health, and adapt to the needs of society in a certain period of education, and maintain the ability of sustainable development in the long-term career, which is consistent with the goal of lifelong learning for technical and skilled talents in the transformation of vocational education. Therefore, we should change the educational concept from knowledge-based to people-oriented in vocational education. Therefore, it is of practical significance to establish a sustainable growth and success system for technical and skilled talents, which can promote the transformation and high-quality development of the modern vocational education system.

2. On the growth system

The cultivation of technical and skilled talents based on the theory and practice of sustainable development is not only starting from the professional work of technical and skilled talents, but also the comprehensive development ability to adapt to the needs of society, but also the basic quality that can carry out development and innovation with the changes of the times.

2.1 Problems in the study of growth system

There is a lack of systematic research on the construction of the current college students' sustainable development system, which often stays at the level of experience summary and reflection, The mechanism of building a sustainable development system failed to reflect the

uniqueness of vocational education, and the evaluation mechanism and educational effect research in the implementation process lacked empirical research and data support. In terms of practice and innovation, the scope of the research only studies the training ways, and the research level focuses on the experience summary of the talent training system of specific majors, and studies the constituent elements of the students' sustainable development system in isolation, lacking relevance and system integrity. There are many ideas, assumptions and suggestions, but in general terms, the operability is poor, The specific systematic research is still blank.

2.2 Essential elements of growth system

The innovation of educational philosophy. It is a people-oriented education consensus to promote the cultivation of the sustainable development ability of technical and skilled talents through immersion education, and effectively improve teachers and students to establish a sustainable development and growth system; The concept of vocational education and school culture will be quietly implanted into the reform of students' development and growth system.

Innovation of education mode. The work of cultivating talents is a systematic project. From the aspects of "enrollment enrollment employment graduation", classroom teaching, social practice, administrative services and other aspects during school, students will grow up and become talents in all directions and the whole process. Only by exploring the construction of a student development and growth system oriented by students' growth needs and paying attention to the cultivation of learners' ability to cope with changes and uncertainties can we get through the "last mile" of education links.

□3□ Practice path of growth system

Carry out the reform of student growth system based on sustainable development. In the reform practice, it pays attention to the whole staff, whole process and all-round education, and the research and design take "integrated development", "through training", "multi-dimensional coordination" and "characteristic building" as the carrier of practical action. To define the connotation and extension of the students' sustainable development and growth system from the perspective of sustainable development, build a variety of education carrier platforms, establish a vertical three-dimensional platform for schools, families, school enterprises and students, and a horizontal platform for the collaboration and interconnection of various departments in the vocational education school, provide classified guidance according to the needs of different grades, and open up in class and after class, in school and out of school. The integration of online and offline can realize the sustainable development and growth system of students who are educated by everyone, everything, always and everywhere.

The reform of training methods that reflect the characteristics of vocational education and vocational colleges. Based on the school running characteristics, cultural traditions and discipline characteristics of vocational colleges, the training approach takes cultural construction as the main line, explores the basic characteristics of students' sustainable development integrated with the school spirit, and carries out educational reform practice in the aspects of strengthening quality construction, reform and innovation, curriculum construction, educational effectiveness, team construction and cultural connotation. Cultivate more high-quality technical and skilled talents, craftsmen and craftsmen from large countries.

3. Exploration of Chengdu aviation vocational and Technical College

Chengdu Aeronautic polytechnic was founded in 1965. After years of development, the scale of the school has been expanding. It is now a public full-time ordinary university run by the people's Government of Sichuan Province and directly under the Department of education. In recent years, the school has constantly summarized its experience in running schools, deepened the reform of Ideological and political work, actively explored the path of collaborative education, and gradually formed the "1235a" education mode integrated with the spirit of serving the country by aviation. In this mode, "1" is "integration": guided by the goal of moral education, it practices the concept of "education first, moral education first, innovative service, and promoting development", and takes the ideological and political quality education covering ideological, political, and moral standards as the main body; "2" is "two wings": the two wings are college students' cultural quality education and student affairs service; "3" is the "three complete education" strategy: all staff education and team building, whole process education and extracurricular activities, all-round education and nurturance education; "5" refers to the construction of the "five projects" of daily ideological and Political Education: the project of political soul casting, the project of ideological navigation, the project of moral guidance, the project of cultural edification and the project of service development; "A" means innovatively implementing the "ten education" of College Students' Ideological and political work: integrating the education elements, giving play to the education functions of ten aspects of work, such as curriculum and practice, culture and network, psychology and scientific research, funding and service, management and organization, improving the education mechanism, and forming a collaborative education mode with the characteristics of higher vocational education and aviation vocational education.

In the construction of "1235a" collaborative education mode, the school takes the campus culture integrated with aviation spirit as the core and soul, and gradually determines the development standard of students as "three good and one excellent and one strong" (good ideological and moral character, good physical and mental quality, good cultural quality, excellent professional quality and strong professional ability); We have established the talent education concept of "serving the country by aviation, establishing ourselves by technology, pursuing excellence, educating adults, putting education first, moral education first, innovating services and promoting development". Focus on the cultivation of sustainable development ability. The school has formulated a student growth standard including 5 dimensions and 16 key elements. The dimensions are ideological quality (good), physical and mental quality (good), cultural quality (good), professional quality (excellent) and professional ability (strong). Among them, ideological morality is divided into political morality, social morality and life virtue; Physical and mental quality is divided into physical quality and psychological quality; Cultural quality includes

humanistic care, aesthetic taste, aviation feelings and international vision; Professional quality includes strict, careful and practical, plan implementation and team cooperation; Professional ability includes not only learning ability and practical ability, but also innovation ability and cross-border ability (Table 1).

Table 1 indicators of student growth system

Key elements	Basic points	Description of main performance
Ideological quality	Political morality	Have a clear political consciousness, be loyal to the people, the country and the socialist cause of the party, take a clear-cut stand in political positions, and stick to political principles.
	Social morality	Be polite, help others, care for public property, protect the environmentObserve discipline and law.
	Life virtue	Be diligent and progressive, respect the old and love the young, be honest and trustworthy, act bravely, unite with classmates, be thrifty and frugal, and be equal between men and women.
Physical and mental quality	physical quality	Understand the meaning and value of life, have the awareness of caring for the body and the method of physical exercise, and develop healthy and civilized habits and lifestyles.
	Psychological quality	Have positive psychological quality, self-confidence, self love, tenacity and optimism; Have the ability to resist setbacks, and be able to regulate and manage their emotions.
Cultural quality	humanistic concern	Understand the importance of learning humanistic knowledge and have basic humanistic knowledge; People oriented awareness, respect and safeguard human dignity and value; Be concerned about people's survival, development and happiness.
	aesthetic taste	Have artistic knowledge and skill accumulation; Respect the diversity of culture and art, and have the awareness and basic ability to discover, perceive, appreciate, evaluate and sublimate beauty; It has a healthy aesthetic value orientation.
	Aviation feelings	Understand the history of school development and aviation development, and understand the spiritual connotation of "serving the country by aviation and pursuing excellence"; Integrate "aviation and Craftsmanship" into study, life and work.
	International Perspective	Have a global awareness and an open mind, respect the diversity and diversity of the world's diverse cultures, pay attention to the globalization challenges in the professional field, and continuously improve yourself with an international perspective.
Professional quality	Strict and careful	The professional requirements of emphasizing quality and safety are imperceptibly applied to production practice, and the professional ethics are constantly strengthened to be down-to-earth, strict, careful and practical, and keep improving.
	Plan execution	Have clear goals and be able to decompose them; Master the methods of making plans according to objectives and time management; Effectively implement the plan, have the consciousness of using the result inspection process, etc.
	team work	Have team consciousness, be able to get along with others equally, friendly, cautious and modest, master communication skills, be willing to accept criticism, and know how to resolve conflicts.
Professional competence	learning ability	Be able to fully recognize the necessity of learning, have good learning habits, correct learning methods, maintain strong interest in learning for a long time, and establish the concept of lifelong learning.
	practical ability	Master certain practical skills and have hands-on operation ability; Actively participate in social practice and professional practice; Be good at finding, raising and solving problems in practice.
	innovation ability	Be able to put forward new opinions and ideas on the basis of learned knowledge and practical experience; It can transform ideas and schemes into tangible goods or optimize existing goods to meet social needs.
	Cross border capabilities	Understand the cross-border significance, have curiosity in other fields and accumulate interdisciplinary knowledge, be able to transfer knowledge content and disciplinary methods, or combine two or more professional knowledge to carry out production activities.

More than 60000 high-quality technical and skilled talents, skilled craftsmen and craftsmen from large countries have been cultivated. Wu Shiyi, a member of "China Civil Aviation hero crew", has emerged. The first national professional ability competition has awarded the title of "national technical expert" Liang Biao, the national training team of the 46th world skills competition, was awarded the title of "national young post expert" by the national "revitalization Cup" professional ability competition, cuihongyu, and hufangyu, the most

beautiful college student in Sichuan in 2019.

4. Conclusion

Sustainable development is not a new concept. With the development of the times, it has become a concept of development. As the main body of sustainable development, people should play their subjective initiative, adhere to and practice sustainable development for a long time, and carry out the cultivation of technical and skilled talents from the perspective of sustainable development should be a long-term scientific concept and practice criteria, build an objective, scientific and reasonable growth system for the cultivation of technical and skilled talents, and improve the process evaluation system for all-round development. Realize the lifelong development of technical and skilled talents in their career and boost the high-quality development of vocational education.

References:

- [1] Na Cui, Jun Dang Thinking and Exploration on the cultivation of College Students' sustainable development ability under the "research oriented" teaching mode [j]Henan agriculture, 2022-3 (21)
- [2]transforming higher education institutions into lifelong learning institutions [R]UNESCO Institute for lifelong learning, 2022
- [3] Opinions on deepening the reform of the construction of modern vocational education system [R]Website of the Central People's Government of the people's Republic of China, December 21, 2022
- [4] Zhiyun Gu College Students' sustainable development core literacy and training path [j]Journal of Anshun University, 2022-4
- [5] Shuai Lu Research on the construction of "three complete education" system in Higher Vocational Colleges from the perspective of students' development core literacy [j]Journal of Zhejiang communications Polytechnic, 2022-3
- [6] Jizhong Zhang, Guijuan Jiang, Jing Wang, Hui Jiang Research and Practice on the cultivation system of students' development core literacy in Higher Vocational Colleges [j]Journal of Liaoning Agricultural Vocational and technical college, 2020-3
- [7] Huan Wang The core literacy system of Higher Vocational Students' development: characteristics and models [j]Journal of Liaoning higher vocational education, 2019-1
- [8] Jinwen Xia, Xiaojun Liu, Yongkai Sun Research on influencing factors and training improvement of sustainable development ability of civil engineering majors [j]Journal of Xi'an University of architecture and Technology (SOCIAL SCIENCE EDITION), 2022-8
- [9] Yan Wu Construction path of Higher Vocational College Students' developmental evaluation system [j], Henan agriculture, 2022-8
- [10] Guoping Ren, Lixin Qian, Lu Cheng, Jiabin Song From "evaluation of people" to "evaluation for people" -- building an evaluation system to promote the all-round development of students [j]People's education, 2022-06 (35)
- [11] Jiarui Bu Exploration on the growth and success system to promote the comprehensive development of Higher Vocational Students -- Taking Guangdong Lingnan Polytechnic as an example [j]Adult education in China, 2022-02 (37)
- [12] Yuhua Chen, Jianchao Liu, etc Carry forward the spirit of serving the country by aviation and cultivate excellent skilled talents -- Research and practice of "1235a" collaborative education mode of Chengdu aviation vocational and technical college [n]China Education News, June 10, 2022 (07)
- [13] Jianqiang Li, Xuewen Tao, Weilin Xu CQ model of engineering talent training based on students' sustainable development and the construction of school environment [j]Textile and clothing education, 2021-08 (310)
- [14] Changlin Zhao, Chunping Huang, Lihua Han Taking student development as the center, build the talent training system of local undergraduate colleges [j]Henan Education, 2018-10 (36)
- [15] Hua Jiang, Xinxin Li, Qianwen Li Research on the process evaluation system of students' comprehensive development in the new era [j]Research on education evaluation in Shanghai, 2022-10 (37)

This paper is one of the achievements of the 2022 school level education and teaching reform and research project "innovation and practice of student development guidance system in aviation Higher Vocational Colleges -- Based on the perspective of" three complete education "(project approval No.: jg2022b105) of Chengdu Institute of Aeronautics and technology.

About the author: jiangxiaomin (1987-), female, from Luzhou, Sichuan Province, is a full-time counselor of Chengdu aviation vocational and technical college, with a master's degree, engaged in research on student education and management.