DOI: 10.53469/jrve.2024.06(11).04

A study on the Implementation Path of Higher Vocational Colleges to Carry out Social Science Education Services for Young People Under the Background of New Media

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Abstract: ***Carrying out science popularization education is of great significance to broaden the knowledge of young people, improve scientific literacy, enhance science popularization awareness and promote social progress. Combining the dissemination advantages of youth social science popularization education under the background of new media and the professional characteristics of higher vocational colleges, this paper analyzes the existing problems, strengthens the development of science popularization education by constructing a vocational and general education integration system; establishes a professional science popularization education service teaching staff, jointly develops high-quality courses; improves the science popularization education method, strengthens interactive communication and improves the teaching quality. It enhances the awareness of teachers in higher vocational colleges on the importance of participating in science popularization education services, and at the same time improves their social service capabilities in the process of practice.***

Keywords: New Media, Higher Vocational Colleges, Social Science Education Services for Young People, Implementation Path**.**

1. Introduction

Vocational education is a form of higher education that is equally important as other forms of education, and higher vocational education is a very important and key part of vocational education. Like other higher education, teaching and educating people, conducting scientific research activities, carrying out social services, and cultural inheritance and innovation are also its main functions. In fact, the ultimate goal of these four functions is to directly or indirectly serve social development. In the new media era, popular science education in higher vocational colleges is an important part of social services. We should take this opportunity to actively give play to the advantages and characteristics of vocational education and strengthen the promotion of social popular science education services.

2. The Communication Advantages of Youth Social Science Education in the Context of New Media

2.1 The Importance of Popular Science Education

Science popularization refers to "the activities of the state and society to popularize scientific and technological knowledge, advocate scientific methods, spread scientific ideas, and promote the scientific spirit in a way that is easy for the public to understand, accept, and participate in." It is a typical mass communication and group communication. The rapid development of new media technology has accelerated the popularization and deepening of science popularization education. In the " Outline of the National Science Literacy Action Plan (2021-2035) " (Guofa [2021] No. 9) issued by the State Council, it is clearly pointed out that "scientific and technological innovation and science popularization are the two wings for achieving innovative development. We must place science popularization on an equal footing with scientific and technological innovation. Without the general improvement of the scientific literacy of the whole people, it will be difficult to establish a large army of high-quality innovators and to achieve rapid transformation of scientific and technological achievements [1]. " This points out the direction for carrying out science popularization education and improving scientific literacy. At the same time, improving scientific literacy is an important part of the quality of the people, the foundation of social civilization and progress, and also lays a solid foundation for enhancing the country's independent innovation capabilities and cultural soft power and building a socialist modern power.

2.2 The Communication Advantages of Youth Social Science Education in the Context of New Media

2.2.1 Large user base and wide distribution range

Carrying out popular science education is of great significance in broadening the knowledge of young people, improving scientific literacy, raising awareness of popular science and promoting social progress. Short video platforms under the background of new media have the advantage of mass communication. Because of its intuitive and vivid content, convenient playback, accurate and concentrated information, and instant interaction, it helps to expand the breadth, depth and participation of scientific communication. Today, the Social Survey Center under China Youth Daily conducted a questionnaire survey on young people in more than 3,000 schools in China. The data showed that nearly 99% of them were concerned about the aerospace industry, and nearly 57% hoped to work in the aerospace industry in the future. Nearly 50% of young people hope to become an

accomplished astronaut like Yang Liwei when they grow up. In order to let more young people see and experience interesting popular science activities and equipment, especially in remote areas where popular science resources are relatively scarce, in February 2024, the China Science and Technology Museum, the Ministry of Education's Propaganda and Education Center and domestic mainstream new media jointly supported the "Mobile Science Class". Taking this as an example, once the activity was released, it was quickly implemented in Guangxi and Henan, and was warmly welcomed and actively participated by students in school. Through this activity, young people in cities and rural areas are connected together. So far, the activity has been carried out simultaneously through a combination of "online" and "offline", attracting more than 90% of provincial science and technology museums in China, more than 500 professors from many universities, and nearly 50 academicians to participate, laying the foundation for the high-quality practice of the activity. This method also combines well-known domestic scientists, popular science practitioners, popular science teaching materials, popular science knowledge and other related resources with "mobile science classes", allowing more young people to experience the power and joy of popular science education and popular science knowledge. Now, the rapid development of various new media platforms has broken the limitations of time, space and region, allowing videos or theoretical knowledge of popular science education to be quickly disseminated. The rich popular science content on the platform can further stimulate young people's interest in scientific exploration, broaden their horizons, and allow children in areas with underdeveloped scientific resources to easily obtain authoritative popular science information.

2.2.2 Short videos are clearer and easier to understand

In schools with relatively rich educational resources, students can learn in class more easily, but it is not so easy for students in remote areas with relatively scarce educational resources. Many contents are only expressed in the form of text without seeing the real effect, and it is difficult for students to imagine in a short time. However, short video dissemination under the background of new media has solved this problem in a timely manner with more intuitive, specific and vivid characteristics, so as to make up for the boringness brought by text. For example, the video "The First Lesson of School Safety" in the "Jiangsu Emergency Safety Education" account shows in detail the safety problems encountered by teenagers when traveling, so that more viewers can more intuitively discover every detail of travel dangers. Under the guidance of the Traffic Management Bureau of the Ministry of Public Security, major domestic new media platforms and travel and transportation platforms jointly launched a series of theme activities for safe travel, using theme topics, theme live broadcasts and special effects games to attract netizens to participate actively. This topic alone has accumulated more than 410,000 video submissions, with a total playback volume of more than 2.5 billion, further enhancing the public's awareness of travel safety.

2.2.3 Interest and entertainment to accelerate the spread of science education

The short video platform under the background of new media has the characteristics of immediacy. At the same time, due to the short time of the video, the viewing process is interesting and entertaining, it has attracted more audience attention. When watching the video, you can also interact with the blogger and other viewers through "likes, comments, favorites and forwarding", which accelerates the understanding of the video content and the spread of the video. At present, the continuous development of new media technology has also improved the interactivity between products and people, allowing more participants to observe, feel and touch in a relatively safe environment. Not only can they experience the real feeling of being on the scene, but also more popular science products can break through the limitations of time or area, so that more interested people can participate, especially students in primary and secondary schools in remote areas. Through the advancement of new media technology and with the help of advanced equipment, they can learn popular science knowledge and experience popular science products in the first place, stimulate students' interest, and learn knowledge in entertainment. For example, a video titled "Traffic Safety" released by the blogger of "Safety Classroom" introduced the publicity content of traffic safety travel in detail in the form of a 3D animation popular science video, which increased the fun and entertainment of the video. Some fans also posted precautions for students' safe travel in the comment area and shared their own insights, so that they can interact with more fans. In addition, fans also share the video content with friends around them or overseas by collecting and forwarding it.

3. Problems in Carrying out Popular Science Education for young People in Higher Vocational Colleges

The popular science education for young people in higher vocational colleges is one of the important contents of their social services. Combining the professional advantages of the school, using students' internships and practices, and skilled teachers conducting research as science and technology commissioners, etc., can not only improve students' professional service skills and comprehensive quality, but also further stimulate young people's interest in in-depth study of popular science education and improve their learning ability. However, there are still the following three problems in the popular science education services currently carried out by higher vocational colleges:

3.1 The Importance of Vocational Education Needs to be Improved

At present, vocational education is not given much attention in society. Most of them are mainly for further study. Vocational education is the last option for parents. The common concept also restricts the further development of vocational education. The report of the 20th National Congress of the Communist Party of China proposed three directions for the future development of vocational education. First, it is necessary to attach importance to the strategy of rejuvenating the country through science and education and improve the system of lifelong vocational skills training; second, it is necessary to attach importance to the strategic reserve of talents to strengthen the country and build a "national strategic talent force", including great craftsmen and

high-skilled talents; third, it is necessary to attach importance to the innovation-driven development strategy and build a learning society and a learning country with lifelong learning for all people. At the same time, the talent training goal of vocational education should be all-round development. On the one hand, it should focus on cultivating high-quality technical and skilled talents, and on the other hand, it should strengthen the learning and training of cultural knowledge and professional qualities. There is still a certain gap between the actual situation and the talent training goals, mainly because vocational colleges and students' parents have certain deviations in their understanding of this aspect. For example, in the process of talent cultivation, vocational colleges will gradually deviate from the previously set goals. There is a certain gap between the understanding of the particularity of the student group and the talent cultivation goals of higher vocational education, which leads to deviations from the actual needs of the social industry in the actual course design, teaching content, and teaching implementation. This requires close integration of industry and education, integrating the training of talents in the industry into teaching, adding the latest knowledge and practical training in the industry, and making every effort to achieve "unity of knowledge and action"; due to the influence of the college entrance examination system, the level of scores still occupies a large proportion in talent selection, which directly leads to parents in many parts of the country paying too much attention to students' scores, not paying enough attention to vocational education, and even having prejudices against vocational education. For example, a large number of parents believe that only students with poor grades, low scores, and insufficient abilities will go to vocational colleges, and they will not have better development and employment prospects after graduation, and their education level will be lower than higher education, and the proportion of parents who have this idea is very high. The existence of such ideas in society has increased the prejudice against vocational education and hindered the smooth connection between vocational education and popular science education for young people.

3.2 There are Few Professional Science Education Service Teaching Teams and High-quality Courses

One of the key factors in talent cultivation is the quality of the teaching staff. The particularity of vocational education and the characteristics of students require teachers to have higher theoretical knowledge and hands-on practical skills, which is commonly known as "double-qualified teachers". After investigating many higher vocational colleges in Guangxi, it was found that there were problems with the structure of the teaching staff in the school, especially the teacher structure of "double-qualified teachers". For example, the proportion of "double-qualified teachers" in the number of teachers in the school is relatively small, the number of young teachers is relatively large, and the theoretical knowledge level of older teachers is significantly different from the current social needs. There is a lack of teachers with rich practical experience and theoretical knowledge from industries and enterprises. There are a large number of teachers who work directly in vocational colleges after graduating from colleges and universities. The proportion of teachers with senior professional titles in schools is relatively small, and a large proportion of them are basically teachers with junior and intermediate professional titles. The existence of the above problems will have a serious impact on the further development of vocational education talent cultivation.

The information on popular science education for young people can be easily downloaded or viewed through the Internet, but there are different problems. For example, the reference value of popular science education articles is not high, and the authenticity and accuracy of key information such as data and cases in the materials need to be further identified. In the key higher vocational colleges developed by the country, there is a relatively strong teaching team that can lay the foundation for the smooth development of relevant popular science education for young people. The school can also gather strong teaching staff and use rich teaching resources in a short period of time to produce matching popular science courses, such as making popular science videos, conducting popular science lectures, holding popular science exhibitions, and organizing popular science research. However, non-key higher vocational colleges attach less importance to popular science education, lack professional popular science education service teaching teams and fewer high-quality courses.

3.3 Vocational Colleges Lack Experience in Carrying out Popular Science Education for Young People

Today, with the rapid development of vocational education, higher vocational colleges are also taking on more and more social service work for the development of regional economy. However, the main task of higher vocational colleges is to train high-quality skilled talents for industries and enterprises, so the social service work they carry out is still closely linked to industries and enterprises, and they have less contact with the popular science education services for young people, and their relevant experience is slightly insufficient. For example, the teaching content of vocational colleges is relatively old, and they have failed to timely integrate the latest theoretical knowledge and technical skills developed in the industry into the existing course teaching. At the same time, there is a certain generation gap and gap between the setting of the curriculum system and the development of industries and enterprises, and the speed of adjustment and updating cannot keep up. Of course, some higher vocational colleges have conducted research on social conditions, established relevant popular science education practice bases, popular science education teams, developed popular science courses, and carried out a series of popular science practice activities, but there is no complete popular science course, popular science teaching method and evaluation method that is suitable for the development of young people and can be quickly promoted at the social level. These are all issues we need to continue to explore. The evaluation method is particularly obvious. At present, the mainstream evaluation method is still mainly a combination of education authorities at different levels and special inspections. Although this can show the school-running level and talent training quality of vocational colleges to a certain extent, the subject evaluation is relatively single. For example, in the evaluation, more attention is paid to students' academic performance, and less to the evaluation of the learning process; emphasis is placed on result evaluation, while process evaluation is ignored; emphasis is placed on teacher teaching evaluation, while teachers' skills,

theoretical knowledge, and evaluation of students' comprehensive development are ignored.

4. Research on the Implementation Path of Higher Vocational Colleges to Carry out Social Science Education Services for Young People Under the Background of New Media

4.1 Establish a System to Integrate Vocational Education with General Education and Strengthen the Development of Science Popularization Education

The development of science popularization education social services by higher vocational colleges is one of the key factors in promoting the development of science popularization education for young people. The State Council clearly pointed out in the Outline of the National Science Literacy Action Plan (2021-2035) that "adhering to coordinated advancement. Governments at all levels should strengthen organizational leadership, policy support, and investment guarantees, stimulate the vitality of multiple subjects such as universities, research institutes, enterprises, grassroots organizations, scientific communities, and social groups, stimulate the enthusiasm of the whole people to participate, and build a socialized science popularization pattern that is coordinated and promoted by the government, society, and the market [1]. " The correct understanding of educational concepts and talent training goals is the key to the continuous development of vocational education. This determines the trend of the school-running model and talent training direction, is conducive to strengthening the cultivation of students' skills and innovation capabilities, and has a very important impact on the sustainable development of students' careers. Compared with general higher education, vocational education should closely integrate with the economic development of society in the process of talent training, pay attention to scientific and technological progress, increase the integration of industry and education, and combine with market demand and development to provide high-quality talents for regional economic development. This requires that local governments and competent departments at all levels should improve their ideological understanding in light of the actual situation, accelerate the construction of the system of vocational and general education integration, popularize the concept, and gradually improve the ability of higher vocational colleges to participate in the social service of science popularization education in practice. At the same time, the obstacles between general education and vocational education should be removed, the close connection and cooperation between the two should be strengthened, and the systematic and institutionalized construction between vocational education and youth science popularization education should be jointly promoted to lay a solid institutional foundation, which can ensure the smooth progress of vocational colleges in carrying out science popularization education among young people from the institutional level. On the other hand, higher vocational colleges should combine their own resource advantages with the promotion of the spirit of craftsmanship, strengthen cooperation with industries and enterprises, carry out colorful and distinctive science popularization knowledge lectures, science popularization skills demonstrations, science popularization demonstrations, etc., and form unique science popularization activities integrating vocational and general education.

4.2 Establish a Professional Science Education Service Teaching Team and Jointly Develop High-quality Courses

There are many necessary conditions for higher vocational colleges to successfully carry out popular science education services. The most important guarantee and basic condition is to establish a professional team of teachers for popular science education services. The majors of primary and secondary school teachers are basically general basic subjects, but the major of popular science education covers many aspects. Higher vocational colleges have rich teaching resources and a team of teachers with multiple majors, which lays the foundation for the development and implementation of high-quality popular science education courses. The team must have members with strong theoretical knowledge and strong professional skills. For example, one is to strengthen training in popular science education, especially practical training and learning. According to the expected plan, professional teachers are arranged to teach and practice in primary and secondary schools regularly, and the training of "double-qualified teachers" is strengthened. At the same time, teaching seminars are organized, combined with the actual situation of young people and the content of the course for analysis, feasible teaching content is sorted out, and it is constantly adjusted in the process of practice. This also requires that teachers in higher vocational colleges strengthen communication with primary and secondary school teachers, learn from each other, cooperate with each other, share with each other, and improve teaching standards. Second, formulate a more complete science popularization education teacher appointment system, clarify the incentive rewards and punishments for targeted social services, improve teacher treatment, actively communicate and coordinate with relevant superior departments, implement the recognition standards and relevant professional title review standards for teachers in higher vocational colleges to participate in science popularization education social service work, attract more outstanding teachers to participate in this social service work, optimize the team structure, increase teaching staff, and improve teaching standards; third, attract more senior professionals with science popularization education experience to serve as part-time teachers, and expand the proportion of part-time teachers.

In order to produce courses that are more suitable for the physical and mental development of young people, higher vocational colleges should focus on promoting the spirit of craftsmanship, give full play to the professional kindergarten teachers of the team, combine the characteristics of young people with the situation of popular science education, integrate professional knowledge with popular science education content, and jointly develop courses that can both conform to the laws of youth development and reflect the professional characteristics of higher vocational colleges. It is particularly important to note that in the course development, we must combine young people of different ages, discuss the course content with primary and secondary schools, design content that students can accept, choose appropriate teaching methods, pay attention to hands-on ability, and further

improve the pertinence of youth popular science education courses.

4.3 Improve the Popular Science Education Methods, Strengthen Interactive Communication, and Improve Teaching Quality

In the process of implementing the popular science education service for young people, higher vocational colleges should make use of the power of new media, constantly learn, improve teaching methods, innovate education methods, strengthen interactive exchanges with excellent talents at multiple levels such as primary and secondary school teachers and highly skilled personnel, and improve teaching experience. First, the team should actively apply the latest teaching methods and teaching equipment in higher vocational colleges in teaching, and use the websites of both schools, campus radio, local TV stations, new media platforms and other channels to promote and popularize popular science education to improve public awareness. Second, the team should make full use of the existing information technology in higher vocational colleges to make it play a greater role. For example, higher vocational colleges can use the power of professional and skilled teachers to build new media platforms, establish relevant accounts, and produce excellent, popular and suitable videos for the development of young people. They can be disseminated through new media platforms and the resources of both schools, and the video content can be further improved in implementation to increase educational significance. Third, interactive exchanges should be carried out between the popular science education teaching team of higher vocational colleges and primary and secondary school teachers and students, listen to suggestions, fully absorb experience, and continuously improve teaching experience. For example, higher vocational colleges can invite primary and secondary school teachers and students to participate in the annual vocational education activity week, various vocational skills competitions, internship visits organized by companies, etc., so that young people can personally experience content and knowledge that is different from what they learn in the classroom.

5. Conclusion

Higher vocational colleges actively participate in the service of popular science education for young people. On the one hand, they can contribute to the development of regional economy, enhance the responsibility and commitment of higher vocational colleges in participating in social services, and improve the ability of teachers in higher vocational colleges to provide social services. On the other hand, it can also allow more young people to realize the significance of popular science education in the implementation of the project, increase their interest, and promote the subsequent continuous development. However, there are still deficiencies in the service of popular science education for young people. It requires the joint efforts of higher vocational colleges and primary and secondary schools to continue to improve, combine professional knowledge with the physical and mental development characteristics of young people, and further improve the teaching quality and the enthusiasm of young people to participate in popular science education.

Acknowledgements

This article is a 2021 annual project of Guangxi Education Science Planning, which explores the path to improve the social service capacity of higher vocational colleges under the background of "Internet +". It is a self-funded key project (category B) (project number: 2021B184).

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