

Occupational Education for Secondary School Students in the North Central Region in Vietnam

Dang Van Hai^{1,*}, Nguyen Thi Huong², Pham Van Son³, Ho Thi Thuy Le⁴, Le Thuc Anh²

¹Nghe An Department of Education and Training
²Vinh University

³Ministry of Education and Training

⁴Nghe An Department of Education and Training

*Corresponding author: haidv@nghean.edu.vn

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Abstract The article has analyzed the importance and identified appropriate contents, methods and forms of occupational education for students at secondary schools. From there, survey the current situation of occupational educLation for students in middle schools in the North Central region of Vietnam and draw out solutions such as recommendations to improve the quality of vocational education for junior high school students in the North Central region, Vietnam such as: Do well in communication education to raise awareness for administrators, teachers, parents, students and the community about vocational education for students; Diversify the contents, methods and forms of occupational education for students; Strengthening facilities and equipment for occupational education activities; Improve the efficiency of consulting and career orientation activities in the locality; Supplement and complete the policy on occupational education for secondary school students; Increasing investment of resources for occupational education activities; Diversify types of vocational training to promote vocational education, and stream students after secondary school.

Keywords: occupational education, students, secondary school

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1. Introduction

Occupational education for secondary school students is a very important task of general education, actively contributing to the development of human resources for the socio-economic development of the country. Over the years occupational education and career orientation for secondary school students in Vietnam has always been a concern of researchers, education managers and teachers. However, according to the Statistics Report 2020 of the Ministry of Education and Training, Vietnam has about 1.1 million university and college students, each year there are nearly 300,000 students graduated, there remains a concern that up to 60% of graduating students do not work in the right direction.

According to statistics of the Ministry of Labor, Invalids and Social Affairs, the number of unemployed people of working age in 2020 is nearly 1.2 million people. In particular, the number of unemployed people at college degrees is more than 65,000 people, there are nearly 53,000 people unemployed at intermediate level, nearly 125,000 people with university or higher are unemployed. The structure of labor qualifications in all branches of Vietnam's social economy is now for every university,

there is a college and one technical worker. Meanwhile, with each employee trained at undergraduate level, for every three employees at college degree and ten are technical workers. Developed countries have a labor qualification structure with each employee at university level, there are 4-6 employees at college degrees and about 15-17 technical workers [3]. This is an imbalanced rate that causes young people to waste their time, money, and job opportunities. One of the reasons for this problem is that the work of occupational education and career orientation for secondary school students has not been fully implemented. If we implement occupational education and career orientation for secondary school students well, we will actively create a human resource training resource to meet the socio-economic development needs of the country.

2. Research Content

2.1. Concept

2.1.1. Career Guidance

According to the Vietnamese dictionary, career guidance is to implement measures to ensure the optimal distribution (with attention to talents, capacities, physical

strength) of people by industry and type of labor, helping to choose the right choice for job [11].

According to the Law on Education of Vietnam, career guidance in education is a system of measures conducted inside and outside educational institutions to help students have professional knowledge, the ability to choose careers on the basis of combining the aspirations, the forte of individuals with the needs of using labor in society [10].

According to the Regulations on career guidance and psychological assistance for residents in the Russian Federation, vocational guidance is a common concept in one of the socio-cultural fields, which appears in the form of social interest and job creation. This generation is growing up, supporting and developing tendencies and implementing synchronous professional measures affecting people in determining their careers and choosing the optimal form to get a job. human needs and capacity, combined with socio-economic situation in the labor market [19].

According to UNESCO, Career guidance is a process that provides learners with information about themselves, about the labor market and orients learners to make the right decisions for career choices" [20].

At the national level, career guidance is a system of measures for the impact of the State, organizing the activities of many agencies in the socio-political system, helping people to choose and determine their career positions in their life.

2.1.2. Occupational Education

Since the beginning of the 20th century, the theory of career-oriented education in high schools has been studied by scientists around the world.

According to Hoyt (1987), occupational education is a process that helps students gain vocational knowledge, know how to use necessary knowledge, skills, and attitudes in the working process, in the production process, and satisfied with the job and in other activities in life. [14].

Research works of pedagogical scientists at the Academy of Educational Sciences - German Democratic Republic such as Heiz Frankiewiez, Bernd Rothe, Ulrich Viets, B.Germer, K.Jaritr, D.Marschneider have proposed deals with the issues of scientific and pedagogical foundations of the organization and management of vocational labor teaching activities for students. The authors suggest a method: "close cooperation between the primary school education center and the high schools in planning internships for high school students" [17]. The works of Wolfgang Schlz, Ulrich Johannes Kledzik have clarified the contents, methods and forms of professional labor organization. Thus, even the works of the authors of the Federal Republic of Germany heavily focused on reforming the content and methods of teaching vocational training, not to mention the basic content of general education, and vocational guidance contribute to the development of human resources for each country.

James P. Sampson, JR. Robert C. Readon, Gary W. Peterson, Janet G. Lenz, researched on methods of organization and management for high school students to practice in factories, enterprises, and establishments of business and services [15]. They argued that students must be classified based on their learning ability to orient

students to go to school to become skilled workers, in the meantimes, complete 12th grade and continue to classify students, be good students attend grade 13 to take the full baccalaureate exam and go to university Therefore, students can learn the profession while in high school.

In Vietnam, occupational education is interested in research by many scientists. According to Nguyen Minh Duong (2005), "occupational education is a system of measures based on psychology, physiology, education, sociology and many other sciences to help students and students orient their careers in the right way, to be able to choose a career to suit the needs of society, and at the same time to satisfy the maximum aspiration, appropriate capacity, forte and individual psycho-physiological conditions as well as the living situation of the individual, to be able to develop to the top in their career, contribute a lot to society as well as create a better life for themselves" [6].

And Dang Danh Anh (2010) said that "occupational education is a cooperative activity between schools and families, in which the school's pedagogical collective plays a decisive role in helping students choose a career on the basis of science". [5].

According to Nguyen Van Ho and Nguyen Thi Thanh Huyen (2006): "Occupational education is a cooperative activity between the school, family and society in which the school plays a decisive role in helping students choose a career on the basis of suitability with social needs, at the same time satisfy the maximum aspiration, suitable capacity, forte and individual psycho-physiological conditions as well as the living situation of each person [8].

From that, we see that vocational education is a synthesis of activities of the school, family and society in which the school plays a decisive role in providing knowledge, forming the ability to choose a direction after graduating from high school, secondary school for students, on that basis, students choose a career that is suitable to their abilities, personality, interests and values, to the family's circumstances and to the needs of society.

2.2. Objectives and Meanings of Occupational Education for Junior High School Students

According to the General Education Program - Overall Education Program, the goal of vocational education for students "is to equip students with knowledge and form career-oriented competencies, thereby helping students choose a career in accordance with their own capacity, personality, interests, concept of values, conditions and circumstances of the family and the needs of society". [[1], p. 29].

The General Education Program has also emphasized the meaning of vocational education: "Career orientation is important to contribute to the achievement of comprehensive educational goals and student orientation after middle school and high school" [[1], p. 29].

Nguyen Van Le, Ha The Truyen, Bui Van Quan [9] analyzed the meaning of career education for students in the following aspects:

Educational significance: thanks to occupational education, the school contributes to the achievement of the

goal of comprehensive education of students, including educational content for students with the right interest and motivation for a career, and have the right attitude towards labor. Therefore, vocational guidance is an integral part of education. It is the familiarization and exposure to the profession, the process of accessing engineering and production technology, the "trying" with professional careers ... brought by the profession education also helps students practice creativity and dexterity, train their technical thinking, economic thinking.

Economic significance: Occupational education helps to promote student orientation, channelize society's human resources, and help the country rationally use the potential of young laborers. This is a very important meaning for economic development, improving labor productivity in society. Every year, there are many students after high school who cannot study at a higher level and directly participate in the labor market, if this force is organized and guided to enter the labor market in a appropriate manner, and meeting the requirements of the social division of labor, they will certainly contribute to improving social labor productivity, and the quality of human resources will also be enhanced.

Political significance: Occupational education plays an important role when implementing educational strategies, human strategies and the cause of building and defending the socialist fatherland. If this work is done seriously and effectively, it will make a positive contribution to student orientation graduating at all levels, classifying capable students, detecting gifted students..., thereby contributing to raising the population's knowledge, training human resources, fostering talents in a practical way, in accordance with the orientation of socio-economic construction strategies, human resource development strategies in each specific political period.

Social significance: If doing well in occupational education, the young generation will be oriented to the working life, the daily activities of teenagers will be stable, from which the society will be more stable. In other words, young people need to be helped to find a job that suits them and the needs of society, thereby, enthusiastically working and contributing, avoiding idleness and instability in the society.

Thus, occupational education plays a very important role, helping students to be able to adapt to different living, studying and working conditions; adapt to the changes of modern society; ability to organize life, work and self-management; have the ability to develop career interests and make decisions about future career choices; develop a training plan to meet career requirements and become a useful citizen.

2.3. Content, methods and forms of occupational education for junior high school students

According to the Program on experiential activities and career guidance activities [2], occupational education activities for students include the following contents:

- Career exploration activities: Find out the meaning, characteristics and requirements of the profession; learn about occupational health and safety requirements, and

learn about the labor market.

- Activities to practice qualities and competencies in line with career orientation: Self-assess their suitability with career orientation, training qualities and competencies in line with career orientation
- Career-oriented selection activities and career-oriented learning plans: Learn about the system of secondary schools, colleges, universities and other vocational education institutions of the local and central; Consult with teachers, relatives and experts on career orientation; Select a future training institution and make a study plan in line with career orientation.

The content of occupational education for students is implemented through different methods and forms. In the study "Career Counseling a Handbook" (2004), the authors Gideon Arulmani and Sonali Nag Armani have provided the basic content on occupational guidance methods for selection of career. Research shows that student job orientation requires appropriate career guidance methods to have access to living space to develop students' career aspirations in order to find the right career choice for themselves based on thereby ensuring the demand for labor of the society [12]. Norman C. Gysbers in the book "Career Guidance and Counseling in Primary and Secondary Educational Settings" (2008), pointed out that: "each student has special talents and unique interests. The education system applied flexibly will help students show their full talents in the most comprehensive way" through which he believes that the vocational education program needs to be included in education from an early age. Directional education needs to be integrated in ageappropriate educational activities right from the lower secondary level and up to the post-secondary level. In the research, he also pointed out that occupational education consists of 3 stages: Occupational awareness; career exploration; execution of career plan. The process of occupational education helps each person realize their own identity, discover their own superiority, realize the career value benefits to pursue, from there have feasible plans to professional development aims to build socio-emotional capacity to help students become active, flexible and adaptable to the future living environment [16].

According to the General Education Program - General Education Program [1], occupational education for students is guided through all subjects such as Technology, Informatics, Art, and Citizenship Education in Vietnam, lower secondary level, high school subjects and through experiential activities, along with local educational content, associated with local production, business and service activities. Occupational education activities in high schools are carried out regularly and continuously, with a focus on the final years of basic education and the entire period of career-oriented education. Through career guidance activities, students are assessed and self-assessed on their abilities, strengths, interests related to careers, human needs of society, as a basis to choose for themselves a career, a suitable profession; at the same time training qualities and capacities to adapt to future careers. In order to fulfill the requirements of the 2018 general educational program, it is necessary to innovate management activities, including occupational education management.

2.4. The Reality of Occupational Education for Secondary School Students in the Current Context

To assess the status of vocational education for junior high school students, we have conducted a survey of of administrators, teachers, students, and parents in the North Central provinces, Vietnam. The subjects of the survey included 90 managers of the Department of Education and Training and junior high schools, 193 teachers, 243 9th grade students, 240 parents at 42 secondary schools representing Thanh Hoa, Nghe An, and Ha Tinh provinces. Survey methods and tools are used through the survey by anket. The survey results were processed using SPSS software. Evaluation through expressions according to 5 levels, corresponding to the scores 1,2,3,4,5. Each level has a certain average value (Very low: 1.00 to 1.80; Low: 1.81-2.60; Medium: 2.61-3.40; Fair: 3.41-4), 20; Good: 4.21-5.0).

2.4.1. The Actual Assessment of the Importance and Significance of Occupational Education for Junior High School Students

From the data in Table 1, some comments can be drawn as follows:

- Students underestimate the importance of occupational education for secondary school students; Out of 7 expressions surveyed, up to 4 expressions were rated at 2 (weak), only 3 expressions were rated at 3 (moderate).
- Parents appreciate more than students about the importance of occupational education for secondary school students, but still only 3 expressions are rated at 3 (weak) and the remaining 4 expressions are still at 3 (medium).
- On the part of administrators and teachers, the assessment of the importance of occupational education for secondary school students is higher than that of students and parents; Out of 7 expressions, there are 5 expressions ranked at 3 (moderate), but only 2 expressions are ranked at 4 (fair).

From the data in Table 2, some comments can be drawn as follows:

- Students rated the lowest about the meaning of occupational education for secondary school students; Of the 3 expressions surveyed, 1 expression is rated at 2 (weak) and 2 expressions are rated at 3 (average).
- Parents and teachers appreciate more than students about the meaning of occupational education for secondary school students, but all three expressions are only rated at 3 (average).

- On the part of administrators, the assessment of the meaning of occupational education for secondary school students is higher than that of teachers, parents and students. However, in the 3 given expressions, there are still 2 expressions at 3 (average), only 1 expression rated at 4 (fair).

2.4.2. The Current Status of the Level of Achievement of Goals, the Content of Occupational Education Meets the Requirements of Post-secondary Student Orientation in Secondary Schools

From the data in Table 3, some comments can be drawn as follows:

- Students rated the lowest on the level of achievement of vocational education goals for secondary school students; Out of 4 expressions surveyed, there are 2 expressions rated at 2 (weak), 2 expressions rated at 3 (moderate).
- Parents and teachers rate higher than students on the level of achievement of career education goals for secondary school students, but all three expressions are only rated at 3 (average).
- On the part of managers, students' opinions on the level of achievement of career education goals for secondary school students are higher than teachers, parents and students. However, out of the 4 given expressions, there are still 3 expressions at 3 (moderate), only 1 expression rated at 4 (fair).

From the data in Table 4, some comments can be drawn as follows:

- Parents of students gave a lowest rate about the content of career education for secondary school students; Of the 9 expressions surveyed, up to 4 expressions are rated at 2 (weak), only 5 expressions are rated at 3 (moderate).
- Students rated higher than their parents about the content of occupational education for secondary school, but still up to 3 expressions were rated at 3 (weak), the remaining expressions were still at 3. (medium).
- On the part of managers, the evaluation of the content of vocational education for secondary school students is not high; out of 9 expressions, there are 2 expressions ranked at level 2 (weak); the remaining expressions are ranked at 3 (average), only one expression is ranked at 4 (fair).
- Teachers rate the content of occupational education for secondary school students higher than administrators, students and parents; however, there are only 2 expressions rated at 4 (fair), the rest are still at 3 (average).

Table 1. Assessment results on the importance of occupational education for junior high school students in the current context

Content	Managers:		Teacher		Parents		Stu	dents
Content	\overline{X}	Level	\overline{X}	Level	\bar{X}	Level	\overline{X}	Level
Structure of high school entrance exam, reasonable human resource training	3.41	4	3.20	3	2.54	2	2.43	2
Make the education system logically structured	3.12	3	3.16	3	2.58	2	2.47	2
Make the education system suitable for socio-economic development requirements	2.98	3	2.79	3	2.64	3	2.53	2
Students can actively choose the path to continue learning	3.48	4	3.44	4	3.31	3	3.13	3
Help students actively choose careers	2.94	3	3.42	4	2.68	3	3.06	3
As a means of organizing educational activities	2.71	3	2.74	3	2.44	2	2.28	2
All of the above comments	2.96	3	2.75	3	2.70	3	2.67	3

Table 2. Assessment results on the significance of occupational education activities for junior high school students

Content	Managers:		Teacher		Parents		Stu	dents
	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level
Through occupational education, students determine their path after secondary school.	3.43	4	2.97	3	2.76	3	2.79	3
occupational education has a positive impact on educational innovation requirements	2.99	3	3.13	3	2.67	3	2.56	2
occupational education contributes to improving human resources for socio- economic development	3.15	3	2.88	3	2.82	3	2.77	3

Table 3. Results of assessment of the actual status of the implementation of the occupational education goal meets the post-secondary student orientation requirement in junior high school

Content	Managers:		Teacher		Parents		Stu	dents
	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level
Help students understand the important role of occupational education for themselves	3.17	3	3.17	3	2.66	3	2.55	2
Help students have career orientation at the end of basic education.	2.97	3	2.73	3	2.74	3	2.78	3
Forming in students the ability to determine the direction after secondary school	2.86	3	2.77	3	2.65	3	2.81	3
Developing in students the need to learn about occupational education in study and daily life	3.45	4	2.68	3	2.68	3	2.51	2

Table 4. The results of the assessment of the actual situation of the implementation of the content of occupational education for secondary school students

Content	Man	Managers:		Teacher		Parents		dents
Content	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level
The meaning and importance of choosing a profession has a scientific basis.	3.50	4	2.77	3	2.54	2	2.52	2
Learn about your abilities and family's professional traditions	2.68	3	3.63	4	2.65	3	2.79	3
The professional world around us	2.76	3	2.58	2	2.44	2	2.66	3
Find out information about some popular jobs in the locality.	2.56	2	2.65	3	2.69	3	2.39	2
Learn about the system of general education and vocational education.	2.61	3	3.61	4	2.62	3	2.83	3
Directions after graduating from high school.	2.67	3	2.85	3	2.66	3	2.93	3
Career counseling.	2.64	3	2.81	3	2.67	3	2.67	3
Orientation for socio-economic development of the locality and the country.	2.68	3	2.59	2	2.57	2	2.49	2
Find out information about the labor market.	2.48	2	2.66	3	2.53	2	2.67	3

2.4.3. Actual Situation of Methods and Forms of Occupational Education for Secondary School Students

From the data in Table 5, some comments can be drawn as follows:

- Parents of students evaluate occupational education methods for secondary school students with 3 expressions at level 2 (weak); There are 4 expressions reaching level 3 (average). However, there is still an expression that reaches level 4 (fair).
- Students rated higher than their parents about the occupational education method for secondary school

students, but there were still 2 expressions rated at 2 (weak), 3 expressions at 3 (average), and an expression reached level 4 (fair).

- Managers, opinions about vocational education methods for secondary school students are not high; out of 8 expressions, 1 expression is ranked at level 2 (weak); there are 6 remaining expressions ranked at 3 (moderate), and only 1 expression at level 4 (fair).
- Teachers rate the vocational education method for secondary school students higher than administrators, students and parents; however, there are only 2 expressions rated at 4 (fair), the rest are still at 3 (average).

Table 5. Results of assessing the actual situation of occupational education methods for secondary school students

Content	Mai	Managers:		Teacher		Parents		dents
	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level
Interview	2.66	3	2.62	3	3.41	4	2.35	2
Presentation method	2.57	2	2.67	3	2.59	2	2.40	2
Problem solving method	2.80	3	3.64	4	2.65	3	2.63	3
Methods through extracurricular activities, field trips	3.42	4	2.85	3	2.71	3	3.65	4
Group teaching method	2.89	3	2.73	3	2.68	3	2.63	3
Methods of practical guidance in teaching occupational skills	2.89	3	3.69	4	2.71	3	2.62	3
Project teaching Methodology	2.70	3	2.79	3	2.37	2	2.69	3
Method of flip-learning mode	2.68	3	2.62	3	2.32	2	2.61	3

Content	Mai	Managers:		Teacher		Parents		Students	
Content	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	\overline{X}	Level	
Integrating into subjects	3.38	3	2.53	2	2.47	2	2.62	3	
Through practical activities (field trips, sightseeing)	3.09	3	3.41	4	2.68	3	3.48	4	
Through occupational education activities	3.42	4	2.82	3	3.09	3	2.76	3	
Through extracurricular activities	3.15	3	3.04	3	2.68	3	3.53	4	
Through educational activities for overseas workers	3.13	3	3.28	3	3.08	3	2.47	2	
Let students visit craft villages and production facilities	2.79	3	2.70	3	2.61	3	2.74	3	
Occupational education classes	2.76	3	2.77	3	2.66	3	2.62	3	
Job fairs and career counseling	2.74	3	2.75	3	2.60	2	2.62	3	
Integrating into general vocational education activities	2.65	3	2.69	3	2.56	2	2.55	2	
Integrating into class activities, group activities	2.65	3	3.53	4	2.61	3	2.48	2	
Exchange with outstanding people in educational field, business field	2.64	3	2.63	3	2.59	2	2.66	3	
Through social activities	2.50	2	2.57	2	3.02	3	2.66	3	
Through club activities	2.91	2	2.63	3	2.64	3	3.17	3	

Table 6. Results of assessment of the actual situation of the form of occupational education for secondary school students

From the data in Table 6, some comments can be drawn as follows:

- Parents of students gave the lowest rate for forms occupational education for secondary school students; in 13 expressions, there have been 4 expressions rated at level 2 (weak), the rest are rated at level 3 (average).
- Students rate forms of occupational education for secondary school students higher than parents, but there are still 3 expressions that are rated at 3 (weak), the remaining 8 expressions are at 3 (average), only 2 expressions rated at 4 (fair).
- On the part of managers, the assessment of the content of occupational education for secondary school students is also not high; out of 13 expressions, 2 expressions are ranked at level 2 (weak); There are 9 remaining expressions rated at 3 (moderate) and 1 expression is rated at 4 (fair).
- Teachers rate the content of occupational education for secondary school students higher than administrators, students and parents; however, there are only 2 expressions rated at 4 (fair), the rest are still at 3 (average).

2.4.4. General Assessment of the Situation

Survey results show that occupational education for secondary school students in the North Central region of Vietnam currently has many shortcomings. Awareness of the importance and meaning of occupational education for secondary school students by administrators, teachers, parents and students is not high. Although the determination of content, form and method has had specific orientations of state management agencies in education, the implementation of the results is still not high, reflected in the low levels of assessment. Most of the expressions were assessed at a weak or moderate level, with very few being assessed at a level of 4 (fair). There are many reasons leading to this situation, through our assessment, the main reasons are as follows:

- State management of education and training is still overlapping, there is a lack of consistency between management and direction in occupational education, and student classification. Some appropriate educational models such as both cultural learning and vocational training in secondary schools do not have a specific and

unified mechanism for implementation. The awareness of a part of administrators and teachers in the area is not enough. The incentive mechanism for students after graduating from secondary school to go to vocational training is still inadequate.

- The planning of human resources in the provinces is still not suitable with reality, vocational training still focuses on simple and short-term occupations, and the effectiveness of post-training support is still low.
- Propaganda to raise awareness of parents and students about the issue of occupational education, and the classification of students after secondary school is still limited. A large part of parents and students have not yet paid attention to their children's future career orientation, cultural qualifications and vocational training have not been considered.
- Consultancy, occupational education, and student orientation are still weak, and an occupational education program has not been built in accordance with local socioeconomic characteristics; the teaching staff doing the job of vocational guidance have not met the professional requirements. The coordination and linkage between secondary schools and vocational education institutions are still inadequate. The training quality of vocational education institutions in the area is not high. The government at all levels has not been drastically involved, the coordination with businesses in the area to promote vocational education is still low.

3. Conclusions and Recommendations

Occupational education for secondary school students plays a very important role, contributing to the good work of student orientation, meeting the needs of human resources in the current context. The results of the current study show that the awareness of administrators, teachers, parents and students about occupational education has not been reported, and the contents, methods and forms of education are not diverse and have not met the objectives that occupational education has proposed. From the assessment and analysis of the causes of the current situation of occupational education for secondary school

students in the North Central region, there are problems that need to be solved. It is necessary to synchronously innovate from the content, methods, forms of organization and assessment of occupational education results, to increase investment in facilities, and to apply information technology in occupational education activities. Education management levels attach importance to and create mechanisms and favorable conditions for occupational education activities. Management of vocational education activities must be started from the school, so before new requirements and new tasks, the school must make changes and adjustments in human, material and working methods to meet with stated task.

In order to improve the effectiveness of occupational education for secondary school students in the North Central provinces, in Vietnam, education managers and teachers need to pay attention to a number of solutions such as:

- Do well in communication education to raise awareness for administrators, teachers, parents, students and the community about occupational education for students.
- Diversify the contents, methods and forms of occupational education for students. Strengthening facilities and equipment for occupational education activities. Due to the natural conditions of the North Central region with many districts in the high mountains, it is necessary to combine direct occupational education with online to create opportunities and conditions for students.
- Improve the effectiveness of local career counseling and orientation activities
- Supplement and complete the policy on occupational education for secondary school students
- Increase investment in resources for occupational education activities
- Diversify types of vocational training to promote career education, student orientation after secondary school.

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