



PROBLEMS AND SOLUTION SUGGESTIONS ENCOUNTERED IN VOCATIONAL SKILL TRAINING IN VOCATIONAL HIGH SCHOOLS: TEACHERS' VIEWS

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Abstract:

This study aims to determine the problems encountered in the process of acquiring vocational skills in vocational high schools and their suggestions according to the opinions of teachers working in the vocational branches of the production-manufacturing sector. In the research, the phenomenological method, one of the qualitative research methods, was used. The study group of the research consists of 21 teachers from different branches. The data were obtained by the semi-structured interview method. The content analysis method was used in data analysis. According to the findings of the research, the problems in vocational skills training are lack of materials, technological infrastructure problems, incompatibility of training programs with the needs of the industry, inability to adapt to changing vocational skills, misguidance in the choice of vocational field and educational system-school management based problems.

Keywords: vocational education, employment, vocational skills, skill training

1. Introduction

Rapid changes and developments in science and technology in recent years have affected vocational education institutions, labor markets and students. Vocational and technical education combines scientific-technological and applied aspects of education and focuses on the requirements and competencies of a particular profession (Alkan, 1999). It aims to educate and train individuals as a qualified workforce for employment in industry, trade and service sectors, and to provide basic education necessary for transition to higher education institutions that continue their profession (Esme, 2007). It is emphasized that the relationship between vocational education and development is established directly in developing countries and that vocational education has an important place in overcoming youth unemployment and industrial development (Ziderman, 1997). The

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task of being a development aid attributed to industrialization in vocational and technical education has been included in policy documents and government programs. The goal of raising qualified manpower for the production and use of advanced technology is included in the Third Five-Year Development Plan and the Seventh Five-Year Development Plan. For this purpose, it was emphasized that vocational and technical education should be given importance in secondary and tertiary education (Akca, Sahan & Tural, 2017). In the Ninth Development Plan, it is expressed as an important problem that students with high cognitive abilities do not prefer vocational and technical education, and therefore the vocational education system does not meet the needs of the labor market (ERI, 2012). Since the beginning of the planned development period (1960's), the aim of vocational and technical education has been directed towards economic goals rather than the social goals of education. Olkun & Simsek (1999) states that it is necessary to evaluate students' abilities and interests, program content, teaching materials and teacher training and employment conditions to determine the relationship between industry and education. The existence of new technologies in the industry and the flexible need for skills in the labor market have also changed the nature of business life. In this framework, it is recommended that school autonomy is stronger, improvement of school manager-employer relations in program development, increase on-the-job training periods, improvement of career planning and vocational guidance services (Ziderman, 1997). Due to the constantly changing industry needs in the 21st century, the workforce is expected to be competent in terms of knowledge and skills. The learning process is very important in ensuring knowledge and skill competence (Kessels, 2001).

1.1. Vocational Skills in the Process of School to Work Transition

Skills are the assets of the workforce participating in production acquired through learning activities. In countries that can correctly establish the relationship between professional skills and economic development, the main axis of professional skill development policies is to compare skill supply and demand, to adapt workers and businesses to change, to identify and provide competencies in line with future labor market needs (ILO, 2010). Vocational and technical education is an important force that helps economic growth and development and acquires the skills, knowledge and competencies required for employment. These skills are easier to acquire through schools-industry collaboration and work-based learning. So, school-industry cooperation is very important in acquiring professional skills (Nathaniel, Lawson & Obed, 2019). Nowadays, skills that facilitate employment are effective communication, creative thinking, problem-solving (Zolkifli, Kamin, Latib, Buntat & Awang, 2016), teamwork and learning to learn (Toner, 2011). Also, it is stated that commercial awareness, computer-technology literacy (Ang, 2015), self-management, desire to learn, thinking skills, flexibility, innovation, entrepreneurship and cultural competence are the prominent skills for employment (Fraser, Duignan, Stewart & Rodrigues, 2019). These skills can be defined as employability skills. Businesses need employees who have not only technical skills but also non-technical employability skills such as leadership, teamwork, problem-

solving, creativity and critical thinking (Zolkifli et al., 2016; Pusriawan & Soenarto, 2019). However, it is stated that skill training given in Turkish vocational and technical education is not suitable for developing technology (Das, Das & Genc, 2018). Vocational education-industry cooperation should be created effectively to acquire the professional skills, updated technological information, appropriate attitudes and behaviors to be exhibited in the workplaces within the framework of professional competencies due to the constantly changing needs of the 21st century (Oviawe, Uwameiye & Uddin, 2017). While demand for skills increased in developed countries, employment in jobs requiring medium skill decreased. On the other hand, employment increased in low-skill jobs and businesses. Employment in high-skilled jobs and low-skilled jobs are defined as job polarization (Goos & Manning, 2003). In developing countries, the priority is to meet the needs of the labor market, to strengthen the education-employment relationship, to effectively implement active labor market policies and to increase the employability of the labor force (Akbasli & Yilmaz, 2016).

1.2. Causes of Change in Vocational Skill Demand

1.2.1. Demographic Change

Those born between 1946 and 1964, when the birth rate is high after the Second World War in advanced industrial societies, are defined as baby boomers. Those born in this period affected the demographic structure of the workforce in developed countries and aging the active working population. For example, it is stated that approximately 76% of the US population was born during this period (Reich, 2006). Decrease in the working-age population and aging of the population in developed countries are weakening labor skills and harming long-term economic growth (Toner, 2011). In the 21st-century labor market, there has been a serious reduction in youth employment and policies are being developed on the continuity or re-employment of the mature workforce in the labor market (Dychtwald & Baxter, 2007; Chatzichristou & Arulmani, 2014). Demographic change has three important effects on education and skills. These are the slowdown in economic growth and the increase in the labor force participation rate in favor of women and older workers, the growth of the young population in some regions, the participation of a large number of young people in the labor market and the development of skills differences due to the increase in the migrant worker population worldwide (ILO, 2010).

1.2.2. Globalization, Information Technologies and Collective Layoffs

Due to economic recessions, mass layoffs were realized in countries such as the UK, USA Japan and unemployment rates increased worldwide in the short term (Reich, 2002). Due to globalization, heavy employment areas in the world change region and country. Sectors (especially manufacturing) shifting towards a lower wage / cheaper workforce have also changed the international structure of employment (Reich, 2006). On the other hand, the desire to master information technologies due to technological developments, flexible workforce practices with the change in the structure of the industry, individual workforce skills stand out in product and service production, and increased employers'

workforce skills expectations (Toner, 2011). Aktas (2017) defines the imbalance between the skills demanded by the business world and the skills offered by job seekers as skill mismatch. The causes of skill mismatch are lack of skill, high or low level of education and skill aging. On the other hand, according to Akbasli & Yilmaz (2016), the rapid changes in science and technology have also affected the business world, revealing the need to increase the efficiency and effectiveness of human resources in employment. Therefore, the importance of vocational education has increased in the acquisition of new professional qualifications and skills, and the development of its quality has become mandatory.

1.2.3. Environmentally Responsible Vocational Skills (Green Skills)

The fight against global warming and environmental protection are important determinants of socioeconomic development and sustainable development for countries. The change in the level and structure of employment and the differentiation in demanded skills are directly affected by global warming and carbon emission reduction policies in many sectors. The necessity of economies to be sensitive to the environment requires that the professions and labor skills should also be sensitive to the environment (ILO, 2010; Chatzichristou & Arulmani, 2014). This new vocational skill development approach for sustainable development is defined as a post-productivist vision. In the old period, the idea of increasing productivity by increasing the quality of the workforce and ensuring economic growth in this way draws a framework that takes into account not only economic growth but also sustainable development through vocational skills and environmentally sensitive jobs (McGrath & Powell, 2016). The creation of an environmentally friendly industry will reduce environmental problems in the world (Zolkifli et al., 2016). Environmental policies to reduce carbon emissions also affect business and employment policies and environmentally sensitive vocational skills need to be developed to ensure a greener economy (Torres, 2009). Vocational training programs and technical teacher training programs should be reorganized to create environmentally sensitive vocational skills. Suhadi & Esa (2017) suggested reflecting environmental sensitivity as an attitude and value in the training of technical knowledge and skills in the process of acquiring environmentally sensitive vocational skills. Also, development studies are conducted on the training of environmentally sensitive vocational skills in technical teacher training programs (Diep & Hartman, 2016). The development of environmentally sensitive professional skills in educational institutions will contribute to sustainable development and environmental protection. Policymakers should develop consistent policies in education and training to create qualified graduates (Kamis, Alwi & Yunus, 2017) and adapt their skills to the labor market needs by targeting an environmentally sustainable economy in vocational education and training systems (Kink & Reinumägi, 2011). Vocational competence must be ensured in the process of vocational skills training. The process of establishing a vocational self is the process of acquiring knowledge, skills and behaviors to students within the framework of vocational competence (Savickas, 2002; Savickas, 2005). The main problems of vocational

competence are standardization, separation of learning in school and workplace, determination of teaching activities, assessment of qualification, change in teacher role (Biemans, Nieuwenhuis, Poell, Mulder & Wesselink, 2004; Mulder, Weigel & Collins, 2007). The main characteristic of competency-based vocational education in the Dutch vocational education system is expressed as filling the gap between education and the labor market. The importance given to the development of the individual's competence in the workplace and social life is reinforced by lifelong learning practices (Biemans et al., 2004). The development of vocational competence is made possible by the interactive integration of knowledge, skills and behavior. Vocational competence is defined as the successful completion of a vocational task by using knowledge, skills and behavior together. The integrations and transfers amongst knowledge, skills and behaviors are important in each new situation (Baartman & Bruijij, 2011). In terms of the relationship between vocational education and employment, the proportion of the young population participating in the workforce, employers' search for a qualified workforce and the preferences of individuals with vocational training to enter the labor market are very important. In this context, making the decisions about the career of the student by knowing his / her qualities in the transition from school to work, making plans for his/her future life are among the necessary expectations in terms of the social division of labor.

2. Aim of the Study

This research aims to determine the problems encountered in the process of gaining vocational skills in vocational high schools within the framework of the education-employment relationship and the suggestions regarding these problems according to the opinions of the teachers. For this purpose, the following sub-problems have been created.

- 1) What are the problems encountered in the process of providing vocational skills required for employment in vocational high schools?
- 2) What are the suggestions regarding the problems encountered in the process of gaining vocational skills required for employment in vocational high schools?

3. Method

This research is a qualitative research designed in the phenomenology pattern. It is aimed to reveal individuals' experiences, perceptions and how they experience the phenomenon in a case study (Creswell, Hanson, Plano Clark & Morales, 2007; Yildirim & Simsek, 2008). In this study, the phenomenon of "*problems experienced in the acquisition of vocational skills in vocational and technical secondary education*" was tried to be investigated in depth. In the research, the maximum variation sampling method was preferred from the purposeful sampling techniques. In maximum variation sampling, the aim is to reflect the diversity of individuals who can be a part of the problem studied to a maximum degree (Yildirim & Simsek, 2008).

3.1. Participants

The participants consist of 21 teachers from different branches in the vocational branches of the production-manufacturing sector, who have at least five years of experience and volunteer to participate in the study, working in a large vocational high school with a high number of students and teachers in Ankara. More detailed information about the characteristics of the participants is given in Table 1.

Table 1: Characteristics of the Participants

Names	Gender	Vocational Seniority	Branch
Ahmet	Male	17 years	Furniture and Interior Design
Hakan	Male	11 years	Electric-Electronic Technologies
Mehmet	Male	21 years	Furniture and Interior Design
Mustafa	Male	14 years	Electric-Electronic Technologies
Kemal	Male	15 years	Machinery Technologies
Ezgi	Female	9 years	Information Technologies
Emre	Male	7 years	Machinery Technologies
Tayfun	Male	13 years	Metal Technologies
Utku	Male	18 years	Information Technologies
Serdar	Male	10 years	Electric-Electronic Technologies
Orhan	Male	17 years	Electric-Electronic Technologies
Arda	Male	8 years	Electric-Electronic Technologies
Necati	Male	15 years	Furniture and Interior Design
Nuri	Male	12 years	Information Technologies
Ali	Male	14 years	Machinery Technologies
Tarik	Male	11 years	Machinery Technologies
Selin	Female	10 years	Information Technologies
Salih	Male	16 years	Information Technologies
Sinan	Male	13 years	Machinery Technologies
Tuncay	Male	16 years	Metal Technologies
Gökhan	Male	19 years	Machinery Technologies

* Participants' real names were not used.

3.2. Data Collection and Analysis

The data of the research were obtained through semi-structured interview forms developed by scanning related literature. Semi-structured interviews were conducted with 21 teachers from different branches and recorded with a voice recorder in the teachers' room at the school. The interviews lasted at least 14 minutes and at most 26 minutes. Examples of questions asked to the participants in the interviews: "What are the expectations of employers for vocational skills for employment? "How have these expectations changed compared to the past?"; "Which vocational skills do you think will increase the probability of employment for graduates in your branch? " and "What are your suggestions for students' job preferences, job opportunities and plans to be more functional?" The voice recordings obtained after the interviews were written on the computer using the Google documents voice typing tool. Content analysis was performed by grouping the data according to the themes. Categories were created through the words (codes) used as the evaluation unit, and research questions or

sentences outside the categories were removed and data reduction was applied. According to Miles and Huberman, the qualitative analysis process consists of data reduction (selection of data), display of data (edited data) and inference (Celik, Baykal & Memur, 2020). This process was followed in the research. Also, to increase the validity of the research thick descriptions and purposive sampling technique were utilized (Yildirim & Simsek, 2008). Also, member checking (Lincoln & Guba, 1985) was applied and their interview texts were sent to each participant and their approvals were received.

4. Findings

The findings obtained from the interviews conducted at the school where the research was conducted were examined under two themes to respond to the research sub-problems. The first theme is "Problems Encountered in the Process of Teaching Vocational Skills" and the second theme is "Suggestions about the Problems Encountered in the Process of Teaching Vocational Skills". As a result of the content analysis conducted on the research data, six categories forming the first theme and four categories forming the second theme were determined. The categories are shown in Table 2.

Table 2: Themes and Categories

Theme 1. Problems Encountered in the Process of Teaching Vocational Skills	
Category 1	Change of Vocational Skills
Category 2	Employment in Different Sectors
Category 3	Sustainability in Vocational Skill Training
Category 4	Equipment and Program Insufficiency in Vocational Skill Training
Category 5	School Management-Education System Related Problems
Category 6	Misleading Attitude in Vocational Field Selection
Theme 2. Suggestions about the Problems Encountered in the Process of Teaching Vocational Skills	
Category 1	School-industry Cooperation
Category 2	Vocational orientation (guidance)
Category 3	Image of Vocational High Schools
Category 4	Equipment Supply and Program Change

4.1. Change of Vocational Skills

The first theme addresses the problems encountered in vocational skills training. In the change of vocational skills category, teachers state that the industry's vocational skill expectations are constantly changing, and it is difficult to adapt to this change. According to the opinions of the teachers, students are expected to be individuals who are open to learning closely following science and technology, have high creativity, entrepreneurship and communication skills, and have analytical and technical skills. Participants' views on change of vocational skills are as follows:

"The expectation of the employer from the internships he / she receives is that there are individuals who have received basic competence about the profession, are open to learning, understand technology and can understand future technologies." (Mustafa)

"I think we have provided adequate training. However, in addition to education, I believe that students should improve themselves in innovation and communication." (Emre)

"Regular work and creative ideas are among the expected skills. The sector brings people who have high entrepreneurship skills and potential to become their own boss. The expectation has changed in this way." (Utku)

In addition, it was emphasized by the participant that the increase of employer expectations about professional skills stemmed from unemployment, developing technologies and international management of jobs:

"Employer's expectations can be listed as analytical ability, technical skills, interpersonal communication ability, computer knowledge, foreign language, management skill. Expectations may vary depending on the position. These expectations have increased significantly compared to the past. The reason is the increase in unemployment. Since the number of applicants in a job application is high, the characteristics of the person to be selected increase at the same rate. Another reason is the development of technology and the international management of jobs." (Salih)

4.2. Employment in Different Sectors

In the employment in different sectors category, teachers stated that students tend to prefer easier ways to earn money, so they tend towards the service sector instead of the production-manufacturing sector they are trained for. It was also emphasized that a large proportion of students work in jobs outside their field. The participants' opinions on this subject are as follows:

"Expectations of vocational skills have changed in our conversations with employers and senior masters. Whereas in the past, learning a job was at the forefront, now the subject of wage is at the forefront for most students. There are shifts to other sectors by evaluating daily or short-term options instead of the view that "if I learn a little bit of patience and learn the job, I can develop myself further and take the top positions." For example, students prefer to work in shopping malls, markets, etc. rather than working in industry, that's why most employers in the industry are looking for reliable staff who really want to learn the job." (Kemal)

"Today, our youth are more oriented towards the service sector. They tend to get a desk and easy job. Nobody wants to work in the production and manufacturing sector because everyone is concerned about making money by easy way. The production and manufacturing sector seems hard and difficult for our people." (Tarik)

4.3. Sustainability in Vocational Skill Training

In sustainability in vocational skill training category, teachers addressed the problems related to the internship practices in the workplace. Internship period in vocational high schools is one of the important processes in which vocational skills training is provided. According to the opinions of the teachers, there are problems in vocational skills training held in the workplace internships. These are the failure to comply with the skill training program of the school during the internship process, the employer is not serious during the internship evaluation process and the students want to leave the internship due to the harsh discipline in the workplace. These problems affect the sustainability of vocational skills training negatively. In addition, when a problem occurs in the workplace internship, the parents end the internship of the student. Thus, vocational skills training ends and causes confidence problems between employer-student and employer-school. The participants' opinions on this subject are as follows:

“Employers give priority to their workplaces’ work plans in their internship practices. So, our school workplace lesson plans cannot be followed. In some workplaces, students cannot be trained at workbenches. Some of our students are bored with discipline and are looking for workplaces where they can do internships in a comfortable environment. Employers send the internship files back to us, regardless of the pictures of the work done by the students in the internship files. This creates great laxity in students.” (Gokhan)

“Previously there was a master-apprentice relationship with respect. Now the parents are on the side of the student against the employer and withdraw the student from the workplace in any problems that arise. The master’s teaching is disappearing. He has to find and teach an intern again. Because of this, trust in vocational high school internship has weakened in the workplaces.” (Ezgi)

4.4. Equipment and Program Insufficiency in Vocational Skill Training

Teachers state that the materials used during skill training are old or inadequate, or that some equipment is not available at school. It was also emphasized that the workshops are old and neglected, the programs used in machines and computers are old and therefore the technology used in the industry cannot be reached. It was stated that the training programs in vocational high schools should be rearranged according to the needs of the industry and the practical courses should be increased by mitigating the theoretical courses. It is stated that these problems make vocational skills training difficult. The participants' opinions on this subject are as follows:

“Within the framework of technological developments, MEB is following technology from behind in terms of both teachers’ development and content of the lesson modules. For example, the use of CNC (computerized machines) has been in the industry for a long time. CNC lessons were given to our 11th grade students last year. The modules of the lesson

are not created and we do not have the equipment to explain this lesson. There is no CNC machine in our department. The computers in our computer labs are very old.” (Ahmet)

“Our education is at basic or intermediate level compared to industry. We have problems in providing technological tools and equipment. For example, while the industry uses 5-axis CNC machine technology, multi-axis CNC sliding vending technology, robot arm technology, 3-axis CMM (Computerized Measuring Machine) technologies, these machines and their advances reach our educational institutions in a limited way. In addition, we use old versions of computer programs that are used effectively in the industry because the computers in the workshop are old. This creates difficulties.” (Kemal)

“What we have given does not match exactly what the industry wants. Industry wants more practice, we give more theoretical. Industry follows the technology, we come from years ago. Our biggest shortcoming is that we do not have the opportunity to bring and display the equipment studied in the industry to vocational high schools.” (Serdar)

4.5. School Management-Education System Related Problems

Teachers think that the branches of the administrators in the school administration are more prominent in vocational high schools and the opportunities are not equal. In addition, it is stated that the level of school ownership of teachers working in vocational high schools has increased over the years and this situation leads to mobbing. For this reason, it was emphasized that rotation should be applied to teachers and other employees in vocational high schools as well as administrators. On the other hand, the fact that vocational high school students are the most academically unsuccessful students decreases the quality of vocational education and moves away from meeting the needs of the industry. Therefore, it is considered that students should be admitted to vocational high schools with an examination. The participants' views are as follows:

“In Vocational High Schools, the branches of school principals are generally more active in that school. In other words, the principal usually emphasizes his own branch more. After a certain period of time, teachers adopt the institution they work for as a place, not as a workplace. This reduces work efficiency and increases mobbing. In the past, school heads used to evaluate schools as their father’s property or inheritance. This situation changed a little after the rotation arrived. Rotation should come to teachers and even to all employees.” (Ahmet)

“Due to the decrease in the importance given to vocational education, we cannot find students in vocational high schools right now. The students who have come to vocational high school in recent years are the last students in the ranking of success, which harms vocational education.” (Mustafa)

"I believe that there will be no problem in vocational and technical education if students with medium and high grades are directed to vocational and technical education in central examinations and technological equipment is provided on time. Our main problem is that the students with the lowest score in the central exams, who come only to get a diploma (driver's license, etc.) are coming to vocational high schools." (Kemal)

4.6. Misleading Attitude in Vocational Field Selection

Teachers state that many students fail due to misleading or do not work in the field they studied after graduation. The teachers think that the biggest effect in the choice of vocational field is in the family. Then, it was stated that the vocational field's popularity and peer influence are determinant in the choice of field. The participants' opinions on this subject are as follows:

"Families are generally influential in the choice of vocational field. One of our biggest problems as a society is that everyone will have a job at the desk. Unfortunately, families sacrifice their children to their own dreams rather than their children's abilities. Many of my students work in unrelated jobs after graduation. The reasons for this are the choice of the wrong field and the misdirection of the families." (Ahmet)

"The orientation of the students to the field they are interested in is related to the technical possibilities of the school and departments and the level of consciousness of the family. Students can not consciously choose a branch with their own interests and wishes. The family influence first, then the comfort in finding a job and a clean working environment affect this situation. Instead of the student's own interests and wishes, the popularity of the field and the advice of the family / environment play an active role in the choice of field." (Arda)

Problems encountered in vocational skills training change of vocational skills required for employment, working in a different sector despite the student's vocational field in the production-manufacturing sector, ending internship practices at the workplace due to the employer or family, lack of workshop materials, outdated and theoretical vocational training programs school principals' favoritist behaviors, admission of students without an examination to vocational high schools and misleading attitude in choosing a vocational field.

4.7. School-industry Cooperation

The second theme deals with teacher suggestions regarding vocational skills training. In the first category, teachers suggested that school-industry cooperation should be more effective and visible in order to realize employment more effectively during the transition from school to work. In this category, there are suggestions such as participation of industry representatives in vocational high school administrations, giving compulsory quotas to vocational high school graduates in employment, increasing the quality of

vocational skills training with mutual protocols to be made with large companies, and not recruiting staff other than vocational high school graduates in employment. The participants' views are as follows:

“There are problems in employment. The reason for this is that school-industry cooperation is not sufficiently provided. This situation should be regulated by rules. For example, there should be vocational high schools to which every branch of industry is affiliated. These workplaces should not recruit employees other than graduates of vocational high schools to which they are affiliated.” (Ali)

“The aim is to carry the vocational education to the nearest level that can meet the needs of the industry. At this point, inter-school protocols, trainee tracking, common cooperation grounds, local or regional, national or international cooperation and project work play an important role in the solution. How far the industry is involved in this process is parallel to how close it is to the level that can meet the needs of the industry.” (Arda)

“After their graduation, their jobs can be guaranteed and their compulsory employment can be achieved by establishing protocols with businesses. Some large enterprises may be required to hire 10% or 20% of the number of internships they employ.” (Hakan)

On the other hand, it has been proposed to establish a flexible training program on the training of vocational skills that will be determined according to the expectations of the industry representatives and the training should be focused on industry demand. The view of the participant is as follows:

“Employers should report their desired vocational skills regionally and sectorally to the Vocational High School Directorates in the province where they are located. The school should make the necessary revisions in its curriculum in line with these requests. Employment problems of students decrease as school-industry cooperation increases.” (Tuncay)

4.8. Vocational Orientation (Guidance)

The teachers suggested opening the relevant vocational branches and guiding the students, accordingly, taking into account the industry conditions and employment opportunities in the region where the school is located. They also stated that vocational orientation should start from primary school. The participants' opinions on this subject are as follows:

“Turkish Employment Agency explains the report of how much manpower is needed in each line of business every year. This report should definitely be taken into consideration by MoNE. School administrators should open vocational programs and guide the student, taking into account the industrial areas of their location. In this orientation, students’

abilities should be taken into account. Students' abilities should be observed from primary school and this information should be used in middle school and high school preferences. Families should be informed about this." (Ahmet)

"The personal abilities of the students, what jobs they like and which ones they love, that is, their acquaintance with themselves, the economic and cultural level of their neighborhood (which is the status and earnings of those who perform that profession in that district or neighborhood or region) and country facts should shape their future plans. Otherwise, material and psychological problems are inevitable." (Orhan)

4.9. Image of Vocational High Schools

Teachers think that vocational high schools have lost their reputation in recent years, so they are not preferred. It was stated that the image of vocational high schools should be corrected in order to prevent being a vocational high school student from creating an inferiority feeling and students should be admitted with an examination to increase the quality of the students. The participants' views are as follows:

"We can improve both the vocational high schools and the quality of students by opening up promising new branches and vocational fields and accepting students with exams." (Ezgi)

"The popularity or, in other words, the reputation of the Vocational High Schools is the most important problem. When a student does not feel inferiority after saying "I am a student at Vocational High School" and the employment rate of Vocational High School graduates increases, the place of Vocational High Schools will reach the level it deserves." (Arda)

"First of all, the lost reputation of these schools should be rebuilt, and the negative view of these schools should be changed. If we are to train vocational technical staff, vocational high schools should be the preferred schools." (Orhan)

4.10. Equipment Supply and Program Change

According to the opinions of the teachers, the insufficiency of the workshop materials, the lack of technological equipment and software and the incompatibility of the workshops with the new technologies affect the quality of the vocational education negatively. It was emphasized that these deficiencies should be overcome, and training programs should be oriented towards practice rather than theory. The participants' opinions on this subject are as follows:

"A comprehensive labor force needs analysis should be carried out as a country. According to this need, vocational high school curriculum should be changed as practice-oriented. In

addition, vocational high school students should be assured to start their own business.”
(Tuncay)

“Our machines and equipment are quite old. These deficiencies must be overcome to provide vocational skills training to students.” (Mehmet)

“I do not think that the current curriculum can meet the needs of the industry exactly. Course topics need to be updated and practices must be shaped accordingly.” (Mustafa)

“The theoretical lesson hours are reduced during the training process, and the increased internship duration and practical lesson hours facilitate the solution of the problem. When we focus on the practice, it is necessary to provide the machinery and materials in full and to improve the workshops technologically. In every new equipment request, allowance is called insufficient. I don't know if it can be achieved.” (Arda)

In order to provide a qualified education-employment relationship, teachers' suggestions are providing the materials needed in vocational skills training, improving technological equipment, improving education programs according to teacher opinions and employer expectations, improving the image of vocational high schools and vocational high school students, informing the parents in vocational guidance and ensuring the school-industry cooperation.

5. Discussion and Conclusion

According to the opinions of the teachers working in the professional fields related to the production-manufacturing sector, six basic problems and four basic suggestions were developed within the scope of the categories related to vocational skills training in this phenomenological research, where the problems experienced in vocational skills training and the suggestions related to these problems were investigated. Rapid technological developments in the information society cause change of vocational skills constantly. According to the opinions of the teachers, the vocational skills demanded by the industry are as follows: being compatible with technology, openness to learning, creativity, entrepreneurship and communication skills. These skills can be evaluated as flexible skills that establish the knowledge-production-employment relationship. For this reason, flexible skilled individuals are demanded in accordance with the flexible structure of the labor markets. Increasing competition conditions with globalization also increase the skill and quality expectation in the labor markets. It is stated that vocational education institutions also have difficulties in adapting to these expectations and they are not successful especially in the transformation in school infrastructure and education programs (Yavuz, 2018). In other words, it is stated that vocational education is not suitable for the conditions and needs of labor markets, graduates cannot find jobs and the competitiveness feature of the existing workforce is weak (Atik, 2018).

The vast majority of teachers emphasized that the materials to be used in vocational skills training are lacking, the workshops are technologically insufficient, and the machine-computer hardware and software are outdated. On the other hand, in order to provide vocational skills training in line with industry needs, it was proposed to reduce the weight of theory in the curriculum and to increase the practical course hours. Similarly, it is stated that technological deficiencies and lack of tools and equipment are an important problem in vocational education, the content of modular education programs is not appropriate, and theoretical course hours are high in terms of education program and practices are inadequate (Ucar & Ozerbas, 2013; Sener, 2018). In order for the development of professional skills to be sustainable, the quality of teachers should be increased, and equipment and infrastructure opportunities should be provided in order for vocational skills to be suitable for the needs of the labor market (Khan, Hasan & Rabbani, 2017).

The teachers emphasized that graduated students work in different sectors and do not work in the field they study. This situation is considered as an important problem in the Turkish vocational education system in terms of vocational education-employment relationship. It is thought that school-industry cooperation moves should be more visible and result oriented in order to solve this problem. Within the framework of the 2023 educational vision, it is aimed to strengthen the education-production-employment relationship in vocational education. Accordingly, it is aimed to update the curriculums, increase the implementation capacity, improve quality, strengthen sectoral collaborations, provide training options in new vocational fields and encourage graduates to work in the fields they graduate. In particular, the aim of increasing the implementation capacity is to update the workshops and laboratories and to focus on practice in the courses (Ozer, 2018). However, according to the findings of this research, it has been determined that workshops and laboratories are old and education programs are theory-intensive. In addition, it has been determined that there are problems in school-industry cooperation and employment of graduate students in the field they are educated.

Vocational education students think that the transition from school to work is difficult. The reason is the difference between the employer's vocational skills expectations and the skills gained at school. It is stated that internships in enterprises have severe conditions and employers see students as cheap labor, which also reduces students' interest in the vocational field (Kalsen, Kaplan & Simsek, 2017). It is easier and permanent to acquire the vocational skills required for employment in workplace training (internships). It also increases the quality of vocational and technical education (Ananiadou, Field & Chakroun, 2019). During the skill training in the workplace, it is necessary to increase the controls, not to evaluate students as cheap labor force, to keep families informed about the internship process and to establish the confidence that the student will work in the same workplace after internship.

Revision of vocational training programs according to vocational qualifications in line with the skill demands of employers will positively affect the vocational education-

employment relationship (Oviawe et al., 2017). It is considered that Turkish Employment Agency should provide a more active mediation service in the school-industry relationship in order to resolve the ongoing skill conflict (Aktas, 2017) in the vocational education-industry relationship. It is recommended to create a graduate-employer communication module that facilitates communication with the sector for 12th grade students studying in all fields of vocational high school. Failure to provide vocational education-industry cooperation leads to the failure to meet the vocational skill expectations of the industry, which negatively affects the education-employment relationship. Kavi & Kocak (2018) emphasizes that employers and sector representatives should be involved in the management of vocational education and decision-making mechanisms in order to ensure vocational education-industry cooperation and to meet the needs of qualified workforce in the industry.

In the research, according to the opinions of the teachers, it was found that vocational high school administrators performed “vocational field favouritism” in their education and training activities. In educational organizations, favouritism can be considered as an attitude that negatively affects the quality of education and training, communication between employees and motivation. It is stated that the administrator’s favouritist behaviors are not ethically appropriate and these behaviors harm the sense of justice in the institution (Rhodes, 2012; Palermo, Carnaz & Duarte, 2019). On the other hand, it is stated that the favouritist attitude of the administrator to any member of the school has a win-win perception in the infrastructure, and maybe it helps future interests of the administrator (Palermo, Carnaz & Duarte, 2019).

Negative judgments in the society towards vocational technical education institutions also affect the future of vocational education negatively. In order to eliminate this negative perception in the society, it is proposed to carry out image renewal studies (Orhan, 2018). The profile of the vocational high school student is related to the negative image of the vocational high schools. The teachers participating in the research consider the registration of students to vocational high schools without examination as a problem. Low academic success causes difficulties in the development of vocational skills. Vocational high school students cannot succeed in central exams and enroll in vocational secondary education without an exam. In addition, the fact that vocational high schools are preferred by families with low socio-economic status leads families to expect their children to enter business life in a short time (Kalsen et al., 2017). Vocational education institutions should be turned into schools that successful students can choose and families' prejudices about vocational education should be corrected (Ucar & Ozerbas, 2013). In this framework, the fact that vocational high schools become preferred schools through central examinations may also positively affect the problem of misleading in the choice of vocational education. According to the opinions of the teachers, the biggest effect on the vocational field selection is the families (parents). It may be suggested to establish a more intensive communication with parents regarding the choice of vocational field and future plans, to compare the expectations of families with the objective conditions of the labor markets and to strengthen school-family cooperation. In

addition, it has been emphasized in the literature on vocational skill development that environmentally sensitive vocational skills (green skills) should be developed in order to ensure sustainable development. However, this finding was not found in the opinions of the teachers who participated in the research. In-depth studies on environmentally sensitive vocational skills in the production-manufacturing sector may be recommended.

About the Author(s)

Gündüz Güngör has a PhD degree in the field of Educational Administration Supervision Planning and Economics. He has been working in the area of educational management, leadership, vocational and technical education, and sociology of education. He has publications in various academic journals in these areas.

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