

Problems Encountered In Educating Qualified Workforce In Vocational High Schools And Solution Seeking

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ABSTRACT

In this century, in which technological development proceeds, it is seen that manpower to work within production sector can not satisfy the expectations of sector. As a result, competition opportunities of companies decrease and their need in educated work force increases that much. The purpose of this study is to research the reasons why qualified work force to satisfy expectations of production sector can not be trained in vocational schools in Turkey and to propose a solution. The machines working with advanced technology are not used efficiently and safely in production sector; this situation poses an obstacle before the aim of providing high quality product at low cost. The resolution is that trained and qualified employees should use the machines within production sector and then quality education should be provided in vocational high schools.

Keywords: Vocational Schools, Skilled Manpower, Quality Education

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1. INTRODUCTION

With the developing technology in the manufacturing sector profit margins decreased and, at the same rate, competition increased. Firms aim to do most work with least people by minimizing the skilled manpower investment which is the most important cost to fight with increased competitive conditions. Understanding of education which can meet expectations manufacturing sector is not given in junior technical college of our country. Being a serious harmony problems between equipment of vocational colleges, educational staff, academics and developing technology is the one of the most important reason.

In our day, there is an intense competition in global market. It's gaining more and more importance to grow man power has the quality to meet expectations of business world in this competition. If education system will fail at growing qualified man power, the price for this failure shall be paid either by enterprises thereby training their available employees with a very high cost, or by society thereby standing for purchasing of goods and services of poor quality (Dahil and Karabulut, 2013).

In the current economic conditions and the labor market becoming increasingly competitive, people must change their job, constantly renew and develop their abilities when they want or has to all over their work life. Thus, Programs of vocational and technical education institutions should give broad and transferable skills to students besides the occupation-specific skills.

Education; it is systematic progress which provides specific improvements and developments on people's thinking, attitudes and behaviors, their lives in the direction of predetermined aims (Barutçugil, 2002). Teaching can be accepted as regulation of learning environment for the realization of learning. Environment, known not only as places of education, but also methods, tools and materials used for transferring the knowledge and guiding the work of students (Gelişli, 2007). Five types of teaching for different purposes. These direct training, remedial education, learning skills facilitation, social skills facilitation and idea width (Hartley, 2007). Especially in industrialized countries, education in today's social structure is examined as preparation of human resources or workforce in the context of societal needs. Educational technology and teaching technology terminologies are often considered as equivalent expressions. Recognizing the distinction between each other as terminology is very important. Many proficient think that educational technology is comprehensive concept which is used in every aspect of education initiatives but learning technology is not a comprehensive concept which is used for using strategies for a particular purpose and specifying teaching and learning process through the media of communication (Donald, 2008). In general the most important natural resources for the development of a country is manpower. It is fundamental to provide high-level production by taking advantage of manpower and natural resources as required. This is possible only through

education. Taking advantage of the natural resources in the best way depends on training of manpower about this issue. The purpose of vocational and technical education is to provide needed basic behaviors for an individual to get a job and progress in that area (Sezgin, 2000). The fact of having a profession which has an important place in people's social lives and practicing the best profession through education effect the life of humans and societies. When you from this point, it is obviously seen that vocational and technical education have an important part in lives of people and communities (Kazu and Demirli, 2004). If the education system does not adapt to the developments in the industry in time, a disconnection between the two systems occurs and the skills imparted in the educational system is becoming invalid in the industry (Ulusoy, 1993). Consistent and attentive content should be regulated with academic standards and the relevant technical knowledge and required skills should be prepared in applicable expertise field for further education and professional life (Donnelly, 2008). To capture contemporary technology, even to give it direct, it is required to give talent of creativity, problem solving and using information along with the handcraft should be taught. Success of vocational education which prepares individuals to life and business area depends on effectiveness and efficiency of cooperation of industry and school. By reflecting this collaboration with the contemporary technological changes and developments to the vocational training programs as soon as possible, there will be an education according to requirements and needs of business life (Kaya, 2005). Vocational and technical education which generally aims to meet the intermediate members of the industry and business area exhibits a dynamic structure to respond the need of rapidly changing technological knowledge, production methods and industry (Ercin, 2004).

In a study conducted within the scope of this article, source of the current problems is found by analyzing the situation of Vocational and Technical Education system at the tertiary level. At the end of the study, suggestions contributing to the solution of the problem come up and information about how these recommendations should be implemented are given.

2. VOCATIONAL AND TECHNICAL EDUCATION PROCESS

2.1 The Historical Development

Vocational education in pre-industrial societies was walking with a structure of master-apprentice relationship rather than a formal education (Şahin and Fındık, 2008). Until the 18 century, vocational training was carried out as Ahilik in Selçuklu period, as the Guild organization in the Ottoman period in a system based on conventional methods. In this structure, children given over to a master by mothers and fathers to learn the profession firstly promote to headworker and later mastery in a period of time working here. In addition, large organizations bound to the state were training qualified personnel they needed by opening courses and schools (Semiz and Kuş, 2004). While principles of professional qualification were determined and at the same time it was based on the protection of commercial morality. With the effect of industrial revolution on Turkish society, vocational education must be carried out in school discipline (<http://etogm.meb.gov.tr>).

In accordance with the directives of Atatürk after the Republic, work of more modern Vocational and Technical Education was accelerated. In 1937 year, provinces were divided into nine region with Law No. 1867 and in every region, art schools which were managed and funded by provinces was activated. Thus, art schools were turned into "Regional Art Schools". (<http://etogm.meb.gov.tr>).

2.2 Qualified workforce and Vocational Technical Education

In sectorial areas of developed countries, while the need of skilled manpower can respond to the expectations and demands of businesses, many of the developing and underdeveloped countries has a serious problem to educate human resources which they need. One of the most important indicator of the nature and impact of human resources is country's productivity figures. When you look at the statistics regarding the efficiency, Turkey has not got a good performance about this topic. For example, while China has increased its efficiency 5 times increasing in the last 20 years, Turkey has stagnated (Saygılı, Cihan, Yavan, 2006).

2.3 The Current State

Vocational education has a structure in secondary, undergraduate and graduate level. In higher education, vocational technical education is given by two-year Vocational Schools and four-year vocational and technical education faculties. Two-year vocational schools are established to ensure needs of intermediate member (Technician) which is needed by industry. The main purpose of the four-year vocational and technical education faculties is to contribute the skilled manpower in the manufacturing and service sectors of businesses with meeting the needs of the teachers to vocational secondary schools.

Vocational schools is one of the most important steps of the 'Vocational and Technical Education System'. Vocational Schools has been established to train qualified interim person who has sufficient knowledge and skills for industry, trade and services sectors. Vocational schools fill the gap between Vocational and Technical Education

institutions providing education at the undergraduate level and employment areas targeted by secondary institutions. As shown in Table 1, vocational and technical education programs are implemented in 48 fields and 247 departments in our country according to 2012 data of Higher Education Council. Based on the same data, 777,741 students studying in 777 in Vocational High School in Turkey and 14,985 faculty members are serving. These figures Show that the number of vocational schools and consequently the number of students increased 2times in the last 5 years. Number of students is 51.9 per instructor. This number is about 2.5 times of all higher education average.

Table 1. Number of Vocational Training School & Undergraduate Students

	INSTITUTIONS		NEW ADMISSIONS	TOTAL NUMBER OF STUDENTS	TEACHING STAFF
	NAME	NUMBER			
TOTAL FOR TURKEY	TWO - YEAR VOCATIONAL TRAINING SCHOOLS	777	290945	777741	14985
TOTAL FOR THE UNIVERSITIES	TWO - YEAR VOCATIONAL TRAINING SCHOOLS	745	279924	755789	13197
TOTAL FOR THE OTHER INSTITUTIONS	TWO - YEAR VOCATIONAL TRAINING SCHOOLS	32	11021	21952	1788

The majority of the students in vocational colleges are provided by vocational and technical high schools. According to statistics from the year 2012, 70% of students in vocational colleges come from vocational and technical high schools. While the number of the students who enrolled to vocational colleges was 190291 in 2008, it was 290945 in 2013. Although the number of the students in vocational colleges increased, infrastructure, the physical space, equipment and staff needs of these institutions were not met at the same rate. So, application decreased quality of vocational colleges' education and the system was paralyzed. Because the students was not taken in vocational colleges basing on serious and scientific criteria, vocational colleges was not the education center which meet the need of qualified people to labor market and turned into the last education stop of the unsuccessful students. Despite all this negativity, current education is hindered because existing workshop and laboratory technology is mostly away from to meet the needs of today's technology. Vocational school's graduates who does not meet the need of technology school's graduates who does not meet the need of technology become not meeting the need of sector. Graduates try to get technologically advanced professional skills by the help of courses because they can't get it from the school. Not meeting the rising need of teacher with the enactment of the passing without examination system is one of the important reason which causes decreasing of education quality. Problem of teaching staff lived in vocational schools is revealed by the figures. According to data from 2005-2006, while there are 68.07 students per instructor in vocational schools in our country, it is 5 in Germany, 9 in Japan, 10 in Belgium (Eşme, 2007).

As a result of the phasing out of the system to pass without examination of student and faculty data to pass without examination after two years have taken their final form and after the passage of examination system by looking at the number of students to be assessed in a more tangible.

According to the work conducted by Ministry of National Education, Higher Education, Ministry of Development and the Union of Chambers and Commodity Exchanges of Turkey together, the number of vocational colleges will be decreased. A part of this schools will be closed, some will be converted into some vocational schools, and others will be merged. Thus, the number of vocational schools showing an excessive rise in recent years will be controlled.

The level of the quality of labor in Middle and Eastern European countries is higher than in Turkey. This situation shows that Turkey has a serious problem to train qualified labor (CEUT, 2004). Educating qualified manpower which can realize the social development is the duty of the education system in a large extent. While education system is carrying out this duty, it sees students as a productive citizen and prepares them to community life, profession world or further education. When indicators are examined, it is seen that the importance is given to

vocational education which train qualified labor in EU countries, in developed countries like the U.S. and Japan. Both students and public administration doesn't show enough interest to Vocational Training Institutions in Turkey where the industry is developing and this is why there is "Qualified person" person.

3. VOCATIONAL AND TECHNICAL EDUCATION IN TURKEY WITH DATA IN THE DEFINITION OF THE PROBLEM

Data in figure 1 shows the professional competency assessments of graduates with vocational education who are working manufacturing and service sectors businesses. Many employers find professional knowledge, skills, attitudes and work habits of graduates inadequate. As a result of the inadequate education of students who are coming from this negativity in technical education, they must produce with educated people instead of skilled labor. Because skilled manpower wanted by Professional organizations is based on "now knowing people but a person who can do" when you look at the table, vocational colleges which must be revised according to the conditions face to serious problems.

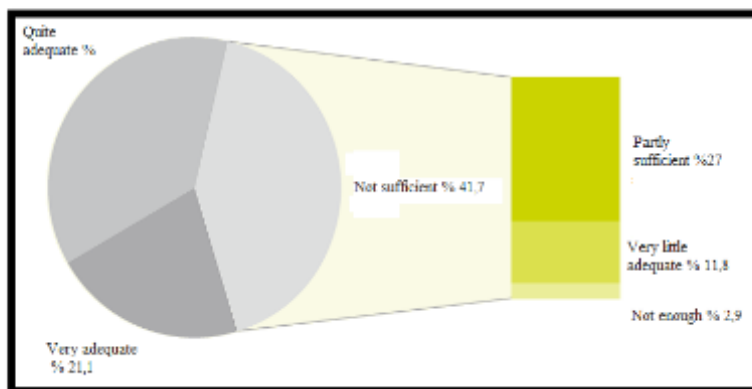


Figure 1. Finding condition adequate for the work which includes career information

(Ministry of Education Educational Research and Development Department-2010)

Vocational and technical education given in current vocational colleges does not graduate qualified person to meet the labor market and so enterprises of manufacturing and service sector must train the graduates again. This is a serious problem for small and medium-sized enterprises who uses new production technology and need fort he qualified person. Improving the quality of vocational and technical education has a serious place in National Employment Strategy Paper. One of them is on the development of education-employment relationship. Works in this field are started to be applied especially with the start of Specialized Vocational Training Centers (KOÇ, ERI). Machinery equipment and hardware needs for implementation of vocational and technical education programs in secondary education are met to a great extent with this application, vocational training back of manufacturing sector form ant years, becomes stronger. Because the students are educated with the same technology which is used in industries, they are able to meet the need of qualified labor after they graduate from vocational colleges. Employment and Training Relations Strengthening Action Plan that is prepared by the collaboration of Ministry of Education, Labour and Social Security, Ministry of Industry and Trade, Higher Education board, Institution of Vocational Qualifications and Turkey Job Institution and finalized by taking opinions of relevant civil society organizations, labor, employers' organizations, professional organizations published in July 2010. Ministries, public institutions and organizations and the private sector are moving together within 60 action plan (KOÇ, ERI).

3.1 Problems Arising From Vocational Guidance

Orientation and attention to vocational schools in our country is less than orientation and attention to vocational schools in developed countries. Harmony between interest and the ability of individuals and specifications required by the work in training the qualified labor is the most important factor on practice of individual's work motivation and profession. Individual himself, interests and abilities, the qualifications required by the job must be very good examined to choose the right job. Even though vocational guidance is being done from secondary in our country, many shortcomings and malfunctions occur of vocational guidance services and promotion conferences in schools are inadequate to choice appropriate career. Needs of social and economic conditions that we are in, family's request, income levels and environmental factors are determinative, rather than individual's ability in vocational guidance. Families who want their children to enter university insist on having a university degree rather than getting vocation. When the lack of the current examination system and guidance service is added to this situation, a conscious