

## VOCATIONAL EDUCATION SYSTEMS IN TURKEY AND THE WORLD: NEW TRENDS AND PROBLEMS

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### ABSTRACT

This study aims to analyze the development and problems of vocational education systems in the globalizing world. It also investigates the implications of educational development on vocational education. As it suggests the development and problems of vocational education both in Turkey and within international context, it is a descriptive study which is designed through qualitative research method. To collect data, literature related to vocational education was examined.

The results of the study indicate that the implementations with regard to vocational education are school-based vocational education and instruction, dual apprenticeship system and informal implementations.

**Keywords:** Education, Vocational Education, Models in Vocational Education.

### INTRODUCTION

The role of qualified workforce which requires individuals to have knowledge, skills and competencies is crucial as they are the key elements for the industrialization and development of countries. Vocational and technical education is a kind of training which systematically supports individuals with the necessary knowledge, skills and competencies for the occupational areas needed in every aspect of social life. Accordingly, vocational and technical education has to provide individuals with the skills, abilities and competencies necessary for their occupations in accordance with the targets of economy and the demands of business world (MEB, 2012; 11). Vocational education and training (VET) can play a central role in preparing young people for work, developing the skills of adults and responding to the labor-market needs of the economy. Despite this role, VET has been oddly neglected and marginalized in policy discussions, often overshadowed by the increasing emphasis on

general academic education and the role of schools in preparing students for university education(OECD; 2010, 9).

Vocational education, which provides individuals with the knowledge, skills and competencies and improving their abilities in a variety of ways, puts forward its function and qualitative power according to country's economic situation. Therefore, the reason of vocational education is labor market, and its main goal is to meet the demands of business world and workforce for it. This aim is not against the political stance of vocational education; on the contrary, a common purpose supported by public. In this sense, vocational and technical education is a process to educate individuals for the necessary knowledge, skills and behaviors for a certain kind of profession and to enable individuals to be financially and socially powerful in social life. It intends to prepare them for industry, agriculture, commerce and other service areas; to develop them by in-service training and to set out principles for formal, non-formal and apprenticeship education (T.C. Hitit University, 2012;11).

Knowledge, skill and competency-based education is gaining importance day by day. To provide education in accordance with the demands of labor market, to empower the relations between education and employment, to implement active workforce policies effectively, to increase the employment of workforce by solving unemployment problems are among the priority issues for industrial countries (MEB, 2012; 11).

In today's world, through rapid technological change and globalization process, vocational and technical education is considered crucial. These developments directly effect the labor market and cause changes in it, and requires workforce to be educated within a systematic plan. Thus, there is a strong relationship between education policies and building new knowledge, skill and competency. This requires a qualified vocational and technical education organized in accordance with the changing and developing environment (MEB, 2012; 11).

The need of workforce in Turkish Industry is an important subject for Turkish economy which tries to gain an international competitive capacity. Outward-oriented economic policy requires workforce to increase the level of quality and performance. This can only be achieved by supporting economic development and accelerating. Vocational and technical high schools, which are key elements in vocational education system, are educational institutions which educate employees for different professional fields and prepare students for higher education institutions (Yörük et al, 2002; 301).

Traditionally, vocational and technical education has been one of the most important matters all over the world (Şencan; 2008). The number one reason for this is that unemployment rates increased in 2008 in many countries. These rates have increased in many industrial and developing countries. Vocational and technical education has been regarded as important for the youth to have new opportunities. Considering the percentages of young people (18-24) who are unemployed and lack of education in EU countries, it has a range from 4% (Holland) to 20% (Greece and Italy) . This rate is over 20% in Latin American countries and 25% in African countries (Eichhorst, 2012).

In Turkey, there have been many studies and reports about the development, revision and reconstruction of vocational and technical education. However, the views and suggestions from these studies haven't been as effective as expected. Therefore, many young people are still unemployed. On the other hand, companies have difficulty in finding qualified employee. The reason is that unemployed young people are the ones who graduate from general high schools and don't have an area of profession. Another reason is that individuals who graduate from vocational high schools are not well-educated (Altay and Üstün, 2011; 1-2).

The purpose of this study is to analyze the development and problems of vocational education systems in the globalizing world and suggest new models within the context. It also investigates the reflections of developments in the educational world on vocational education.

## METHODOLOGY

This study suggests the development and problems of vocational education both in Turkey and within international context; therefore, it is a descriptive study which is designed through qualitative method. The data were collected through analyzing the national and international reports and articles related to vocational education.

## FINDINGS

This section discusses the current situation of vocational education in Turkey and the world, problems and new models suggested for vocational education. The models for vocational education can be categorized as follows;

### Vocational Education Models in Developed and Developing Countries

There are a great number of implications within vocational education throughout the world (Eichhorst, 2012).

#### 1. School-based Implications

Described as "Full-time Vocational and Technical Education Model", this model is based on a-8-10-year compulsory primary education. After this period is completed, some students are directed to professional life and some others who have succeeded to some extent are directed to study at higher education institutions. Meanwhile, this education is quite expensive and requires the school equipment to be renewed regularly. Vocational education provides students with the knowledge and skills required for their occupations. This model is commonly used by most of the developed countries (which focus on full-time vocational and technical education) such as:

- *Northern Europe Countries:* Spain, Portuguese, Greece, Belgium, Sweden, France and Italy.
- *Middle East and Northern Africa Countries (MENA):* Egypt, Tunisia, Jordan, Algeria, Israel, Israel, Syria, Turkey Russia, Czech Republic, Hungary, Romania Slovenia and Serbia.
- *Central Southern Africa Countries:* Madagascar, Mali, Senegal.

#### 2. Dual Apprenticeship System (School-based and Workplace-based; Dual System)

In this system, students have theoretical training at school and hands-on training at workplace. Countries such as Germany, Switzerland, Denmark and Austria focus on apprenticeship model. Similarly, the USA, Holland and England use both models together.

#### 3. Informal Based Implications

Informal vocational education causes informal employment in many developing countries, which is a big problem. In many countries such as India and Africa, vocational education or instruction is based on so-called traditional or informal apprenticeship system. This system is also called clandestine apprenticeship. This system is usually used in the countries with a low level of labor market and economy (ex: Sub-Sahara countries, Southern and Northern Africa, and Middle-East countries.).

The models that are used by certain countries can be classified as follows:

#### Vocational Educational Model in Germany

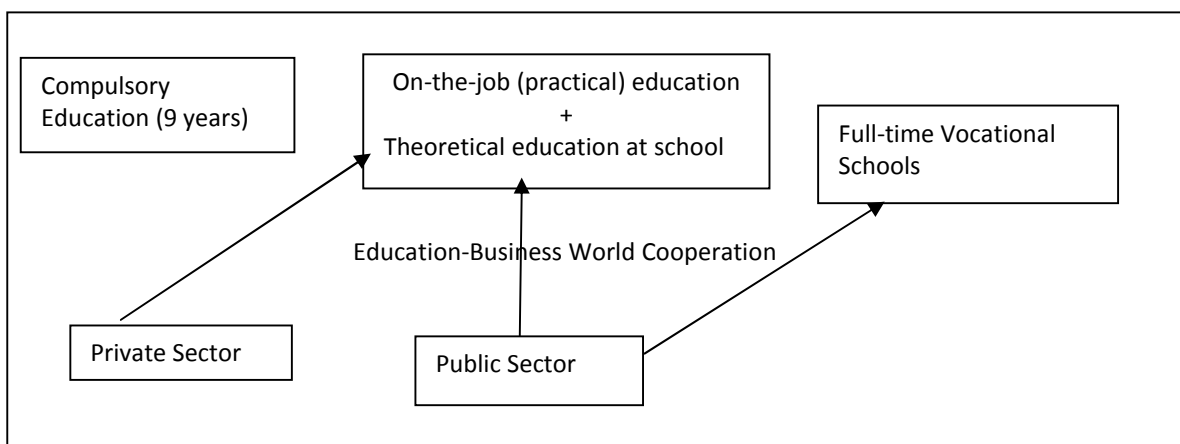
Vocational education is a keystone in German economy. All the investments in this field is considered as investments for the future and applied according to view. After the First World War, trade unions began to be interested in vocational education and introduced apprenticeship law in 1969, then reformed in 2005. Secondary education structure in Germany is given Table 1 (<http://www.tesk.org.tr/tr/proje/yurutulen/ekspertiz/almanya.html>).

Table 1: Secondary Education Structure in Germany

School Types in General Secondary Education ( <i>Gymnasiale Obrestufe</i> ): <i>Gymnasium/ Berufliches Gymnasium/ Fachgymnasium/ Gesamtschule</i>	16 – 18/ 19 years
Vocational Education <i>Berufsfachschule</i> (Full-time vocational school) <i>Fachoberschule</i> (Full-time vocational school) <i>Barufsoberschule</i> (Full-time vocational school) <i>Duales system</i> (Dual System: Part-time Full-time vocational school and part-time on-the-job instruction)	15/16 – 18 years 16 – 18 years 18 – 19 years 15/16 – 18/19 years

In German dual system, general education graduates study at vocational training programs for 2-3 years following full-time compulsory education. This system is called dual system as the students have training both at workplace and vocational schools (*berufsschule*) at the same time. The reason why German education system is powerful in EU countries is its strong cooperation and collaboration between school and employment. With its intrabusiness training and 1-2 days of theoretical training at school, dual system provides the students with experience and employment opportunities for their future careers. In Germany, general education diplomas or vocational school diplomas are at the same level of importance. The basis of the system goes back to the guilds which provided vocational training in the middle age. With its Vocational Education Law legislated in 1969, dual vocational system took its present form. In addition to learning about the professional field, the students gain experience. Dual vocational education has been approved in every part of the economy since 2007 and it serves for 346 jobs. The duration for dual vocational education is usually between 2,5 and 4 years (Altay and Üstün, 2011; 4).

Table 2: German Dual Vocational Education System (Özdemir, 2012).



In Germany, firms are rented to be used by vocational education system, which has been really successful. The rent and payment procedure of these firms in cooperation with the institutional conditions of German vocational education system have been simply modelled. These implications on dual vocational education system, which use schools and physical environment effectively, is common and successful in Germany (Binici and Ari, 2004; 387-388).

The executive institutions that run the process of German vocational education system are Federal Ministry of Education and Research, Federal Institution of Education and Instruction and Chambers of Commerce and Industry. Chambers of Commerce and Industry are represented by Federal Institution of Education and Instruction. In dual system, schools are funded by the state and municipalities; firms by themselves. Vocational Education Commissions and Testing Commissions within the scope of chambers are responsible for (Özdemir, 2012):

1. The accreditation of business for apprenticeship
2. Supervision of the education in terms of content and duration.
3. Offering consultancy service for firms and apprentices.
4. Testing, Evaluating and the certification of apprentices.
5. Keeping the records of contracts.
6. Mentoring apprentices for career

Firms in dual system take their own decisions on how many students they will accept, which professional field they will provide hands-on training for and how much to spend on these. The following are the responsibilities of these firms (Özdemir, 2012):

1. Preparing an educational plan in accordance with education directive for dual system.
2. Providing students with practical training for a certain occupational area during 3-4 days a week by means of signing an apprenticeship contract.
3. Providing environment and educators for practical training.
4. Paying an amount of salary to students.

The main purpose of dual vocational education system is to provide students with the extensive knowledge and skills for their future careers in accordance with the changing needs of the business world. Many graduates from different secondary schools (Hauptschule, Realschule, and Gymnasium, Gesamtschule or a vocational school) reconvene in dual system. To take part in the system, no other prerequisites are needed (Altay and Üstün, 2011; 4).

#### **Vocational Education Model in Finland**

Primary education in Finland is for 7-16-year of children and lasts 9 years. The second half of secondary education provides the students with the general education. This period ends with abitur exam. Primary vocational education is provided by specialized vocational institutions in almost every field with apprenticeship education. It usually takes 2 or 3 years for the students to complete. This proficiency level enables students to study at any higher education institutions. Higher education system in Finland includes two parallel sectors: universities and polytechnic schools. Universities are the institutions which provides students with scientific research abilities whereas polytechnic schools are for business life and these polytechnics serve high skills which are determined by themselves. These schools provide higher vocational education in multiple fields for the students who succeeds in abitur exam. If a student has a degree in a two-year vocational program, he or she can only study in the same field. It usually takes 3.5-4.5 years to graduate (Altay and Üstün, 2011; 15-16).

#### **Vocational Education Model in the USA**

The 20<sup>th</sup> century in the USA resulted in institutional change and this provided technical institutions and public schools with intermediate staff. Federal government provided financial support to this education but it resulted in the deceleration of the system. Secondary and Post-secondary education plans should be made different institutions, which is on debate. To encumber the same responsibilities to two different institutions is harder for the operation of the system. This procedure has been supported by authorities for the last 20 years. However, it hasn't been successful within that period. Rather than certain vocational arrangements from the developments in 1990s, the focus of secondary schools is more on general abilities. It is under consideration that federal authorities should run the vocational education system (Binici and Arı, 2004; 388).

#### **Vocational Education Model in South Asia**

Many countries apart from EU countries also have successful vocational education models. Findings from vocational education studies in the countries such as Korea, Malaysia, Singapore, Taiwan, and China show that they do not implement only a single type of education. These countries have realized that non-taxation of vocational education expenses and encouraging the special training is useful. In addition, the institutions in these countries have the right to choose their own students and staff and free to select which course to teach. Employers have joined in many activities related to vocational education. These activities include education policies and the results of these are compared with alternative interventions in human resources field. There have been many studies on the methods of skill acquisition since the early years of 21<sup>st</sup> century. These studies

are based on the new trends and acquisition of collaborative study habits. However, the acquisition of these habits are difficult. By means of skill improvement and collaborative study habit formation, poverty level reduce whereas growth rates increase (Binici, Ari, 2004; 388-389).

### **Kazakhstan Vocational Education Model**

In Kazakhstan, VET has three main functions: i) qualification: to provide the population with the skills needed to foster economic prosperity and social stability; ii) employment: to help the population to find a job suited to their preferences and responsive to societal needs; and iii) integration: to help individuals to insert successfully in the society. Students wishing to enter VET institutions in Kazakhstan may do so either at upper secondary level (currently after 9th grade) or after upper secondary schooling (currently after 11 th grade) (OECD 2013). Overall, upper-secondary and post-secondary VET are provided at the same institutions in Kazakhstan. Until 2012, two main types of institutions provided VET: colleges and vocational lyceums. Both types of institutions enable students to obtain a professional diploma in more than 180 professions and 15 fields. The colleges of technical path and professional lyceums, formerly known as Technikums, tended to focus on training specialists mainly for industry, building, transport and agriculture. Colleges tended to train specialists outside the industrial sphere, for example for primary teachers or health professions, but also in the field of art, theatre or dance. Since 2012, these types of VET institutions have been called colleges. The Law on Education now stipulates in Article 1, Paragraph 35, and that3: “College” refers to an educational institution implementing educational programs of technical and vocational education, whether at upper secondary or postsecondary educational levels (OECD, 2013).

In some, we can device general education track of higher secondary education there are also two types of vocational tracks: Initial Vocational Education, Secondary Vocational Education. Initial Vocational Education in Kazakhstan is provided by the country’s (initial) training schools and lycees, while Secondary Vocational Education is provided by colleges. Below we will take a look at the various institutions that provide basic and advanced vocational education and the type of programs they institute(<http://referatikz.ru>).

#### **Training Schools (Initial Vocational Education Track)**

Training schools in Kazakhstan are designed to train students in a trade or skilled profession of some type. These programs, which are entirely vocational in nature, can span anywhere from one to three years, depending on the type of trade or profession on which the student is focusing his/her study. Graduates of training schools can go on to further their studies at either a vocational college or university, or enter the world of employment in the same or related trade. Training school education is provided for students free of cost, although students may be required to purchase special equipment, textbooks and other materials(<http://referatikz.ru>).

#### **Lycees (Initial Vocational Education Track)**

The lycees in Kazakhstan are also set up to offer students an initial or basic program of vocational education and to prepare them for a variety of skilled professions. However, lycees differ from training schools in that they also offer basic academic education along with specific vocational program instruction. All of the programs in the country’s lycees span three academic years, often referred to as grades 10-12(<http://referatikz.ru>).

#### **Colleges (Secondary Vocational Education Track)**

Secondary or Advanced Vocational Education is provided by Kazakhstan’s colleges, with programs that also include general academic education. Depending on the field of study, the program length at the country’s colleges can span anywhere from three to four years—Grades 10-12 or Grades 10-13. Accelerated programs exist for students who have already completed both general secondary education and initial vocational training in the same field. Graduates may go on to the university to continue their education or they can opt to begin working in their chosen field of study. After the 1999 Budget Law was passed, colleges became state-owned and self-financed. [xiii] This was done in part to ensure more of the country’s students continued their education past the compulsory age of 15(<http://referatikz.ru>).

The curriculum for both initial and secondary vocational education is established by the Ministry of Education, with little choice left up to the individual schools. Textbooks are sold in bookstores throughout the country and are purchased by the students themselves (<http://referatikz.ru>).

### Vocational Education Model in Turkey

In Turkey, Professional Competency Board carries out the research done by the competency boards in European countries. Furthermore, within the project for the development of vocational training (MEGEP), 42 occupational fields were determined and a modular vocational training programs were designed for 194 majors. In accordance with the law 3308, these programs were classified according to İSCED 97 and the majors were named similar to the program names in Europe. Vocational training institutions started the implementation of these modular program in 2005-2006 academic year. These institutions implement apprenticeship training. Previously named apprenticeship training center, these institutions provide education for 110 major fields in accordance with the law 3308. There are 378 Vocational Training Centers (MEM) whose aims are to prepare the individuals (who are 14-18 years old and who don't have formal education) for their profession, provide the apprentices and masters with social security, experience and work discipline (Altay and Üstün, 2011; 21).

Vocational high schools have been providing modular training since 2006-2007. Education programs and coursebooks for these 4.500 modules were prepared and opened to internet access. In addition to this, these programs and books were burned onto CDs and sent to schools (Altay and Üstün, 2011; 21).

The preparation of the action plan for the Certificate of Vocational and Technical Education Strategy, which was developed for 2013-2017, was based on flexibility in policy making. It was aimed to build a flexible structure among the all the types of schools or institutions for internal and external transfers (MEB, 2012;14).

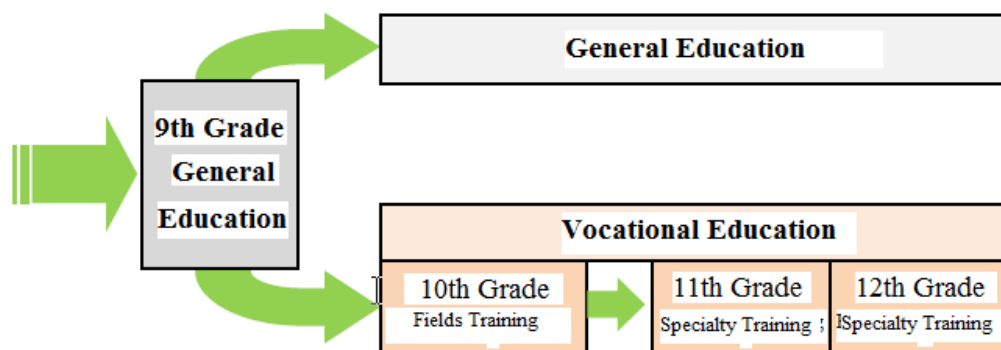


Figure 1: Student Orientation and Vocational Education Process

The matriculation of students for vocational high schools depends on the school type, fields and majors. Transfers of the students between programs and school types can only be done under some certain conditions. Vocational and technical secondary education consists of vocational and technical high schools which apply various programs (MEB, 2012; 30)..

### CONCLUSION

In many countries, there are various implications in vocational education in terms of countries' level of development and industrial substructure. According to the findings of the study, the following results were found:

1. Described as "Full-time Vocational and Technical Education", School-Based Vocational and Technical Education Model is based on a-8-10-year compulsory primary education.

2. Dual apprenticeship system consists of informal-based applications which combine school and education with a business-based approach. In this system, students have theoretical training on certain days of the week at school and practical training at workplace during the rest of the week.

3. Informal-based implications are related to the role of informal vocational education. In addition to this, informal employment in many developing countries is a big problem.

When the models analyzed, Germany and the USA, which have a good quality of vocational education, implement dual system; Central Europe and former Soviet Republics apply school-based system and the other countries, which have a higher level of unemployment and non-taxation economy, adopt informal-based implications.

Despite the fact that Turkey and Kazakhstan pay attention to vocational and technical education, student orientation level to vocational secondary schools has decreased because of negative policies. Successful students tend towards general secondary schools.

In some professions, technology is not followed appropriately and old materials or equipment are used to educate students. The educations in vocational and technical institutions which train teacher candidates are still full of uncertainties.

In the physical substructures of vocational and technical schools, their educational programs and teacher qualifications were not determined. While they apply modular programs, the structure of vocational education system is not designed in accordance with these programs.

Within the scope of the relationship between EU and Turkey, not an adequate corporation has been achieved and no transition has been achieved in accordance with the union criteria within vocational education.

There is not a strong connection between school-based vocational education institutions and sector, which prevents sector from training individuals required for the labor force.

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