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**Article**

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# Vocational education and training for sustainable development<sup>1</sup>

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**Abstract:** Sustainable development is an approach to manufacturing and the transportation of goods and services in ways that respond to basic human needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over a life cycle. Changes that occur in the production period of goods due to the influence of technological developments make linear relationships between vocational education and sustainable development more important. Education and training relationships between sustainable developments is a process. It is a process of incorporating considerations that impact the long-term future of the economy, ecology and society into vocational education and training. In this paper we aim to define sustainable development and vocational education . By focusing on the Turkish vocational educational system and its contribution to sustainable development. This paper points the differences of vocational education structures in European Union Nations And Turkey during the period of 2000-2009. According to results of this comparison; vocational education is most widespread in Germany, United Kingdom and Denmark. Turkey has the lowest rate in vocational education student enrollments. In a conclusion the sustainability of vocational training in Turkey is likely to continue to be problematic. Governments can do more to support the sustainability of these skills development systems and need to pay attention to both public and private vocational training and education . In terms of theoretical literature vocational education is vital for combatting the youth unemployment .Turkish politicians must invest on vocational education centers to improve youth peoples employment.

*Keywords: vocational education, sustainable development, Turkish education system*

## 1. Introduction

The role of vocational education and training (VET) in sustainable development has been widely discussed in literature (Bennell and Segerstrom, 1998; King and Martin, 2002; King et al., 2007; Palmer, 2007; McGrath and Akoojee, 2007, 2009; King, 2009; Lewis, 2009; Little and Green, 2009; McGrath, 2011. Bennel and Segerstrom (1998) argued that the World Bank views

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about the VET policies in terms of public and private system. There are some neo-liberals in the World Bank who believe that the publicly funded VET system is essentially unreformable and inefficient in the majority of developing countries. They also believe that governments are naturally inefficient and ineffective providers and, more generally, the returns to VET are relatively low. Because of this, VET system must be largely privatized. Little and Green (2009) examine the role of education in ‘successful globalization’ and how this links with agendas for sustainable development. McGrath (2011) examine the implications for VET in recent trends in thinking about development through the exploration of three particular theoretical approaches: human rights, capabilities and integrated human development.

Human capital theory suggests that vocational training raises the productivity of workers by imparting useful knowledge and skills, thus raising workers’ future income by increasing their lifetime earnings (Becker, 1964). Becker (1964) and Mincer (1974) provide an explanation that links investment in training with workers’ wages. In particular, their theory draws a crucial distinction between general education and firm-specific training. Over the past thirty years or so, hundreds of studies have been conducted to estimate rates of return to education (RORE); most of these studies show that formal schooling is a crucial factor in explaining variations of salary and wages in well developed countries (Cohn and Addison, 1998). Comparative studies have been conducted in some less developed countries, focusing on investment in formal education (Psacharopoulos, 1985, 1994).

This article has two main sections. In the first, I will briefly examine the orthodoxy of VET for economic development and sustainable development. Then, I will move on to the larger section in which I examine trends in development theory and consider their implications for VET in Turkey. This paper aims, finding the differences of vocational education structures in European Union Nations And Turkey during the period of 2000-2009. I will then summarize my arguments and consider their implications in a concluding section.

## 2. Education in Sustainable Development

The term Sustainable Development was first defined in The Brundtland Report (1987). This report defined the concept of sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987: 8).” Dresner (2010: 2) explains how sustainable development is described in different ways in his book “Different people use the term in different ways, some emphasizing development through economic growth, and others emphasizing sustainability through environmental protection.” Sustainable development could be categorized in three spheres: Environment (including water and waste); Society (including employment, human rights, gender equity, peace and human security); Economy (including poverty reduction, corporate responsibility and accountability).

Issues such as HIV and AIDs, migration, climate change and urbanization involve two or more of these spheres. Education for Sustainable Development is vital to educate children and ourselves with the express purposes of ensuring a sustainable future (Little and Green, 2009: 171-172). Sustainable development contain eight issues to take action on in the future: Population and Human Resources, Industry, Food Security, Species and Ecosystems, The Urban Challenge, Managing the Commons, Energy, Conflict and Environmental Degradation.

These issues were discussed at United Nations Conference on Environment and Development, which took place in Rio de Janeiro, Brazil, in June 1992. This meeting brought together nearly 150 Heads of State. After this conference sustainable development has been a key theme at a series of United Nations conferences discussing pathways to development. These conferences have shown that the interdependent links between environment and development are not simply about conservation and economics, but concerns for issues such as human rights, population, housing, food security, and gender that are important parts of sustainable human development (Unesco, 2010). Sometimes these are referred to as the “3 E’s” of sustainable development – Equity, Economy, and Ecology.

Education is one of the most important activities that increases the standard of knowledge of humans. Education is a social process even if appearing individual. It is a progression considering the individual person as "micro" and the whole society as "macro". At the present

time while economic, social and cultural changes have occurred, education not only develops the essence of a person, but also community. Providing development at issue becomes with human capital.

Education for sustainable development involves the shaping of values and networking scientific, socio-cultural and philosophical teaching content. Education for sustainable development could create active and responsible citizens ready to address challenges like climate change and to act in problems about environment. The mission of vocational training and education is to provide people to manage with the ability, having responsibility and conduct economic activity in a resource-efficient way (BWP, 2009: 54).

### **3. Vocational Education and Training (VET)**

Defining VET as a sector within the education system poses a number of difficulties. For the most part, general and academic education is seen as that which builds analytical skills, knowledge and critical thinking, while VET develops craftsmanship, practical experience and practical problem-solving. However, this simple distinction does not hold up to scrutiny. Critical thinking and analytical skills are needed for a good plumber or electrician who must routinely make judgments in order to solve problems. Equally, a good surgeon needs a large set of practical skills to masterfully operate on a patient. These simple distinctions can also lead to confusion and academic drift of vocational institutions (Neave, 1978) or a vocationalisation of higher education (Williams, 1985).

More developed economies are concerned about the ease with which young workers can make the transition from being students to entering the workforce. The unemployment rate for youth exceeds that for the economy as a whole, contributing to a variety of social problems. In addition, many young workers struggle to find their place in the labor force, changing not only employers but also occupations multiple times before they settle down to stable jobs. One appealing way to deal with this transitional problem is to link students more closely to jobs through vocational education programs and through apprenticeships with firms (Ryan, 2001).

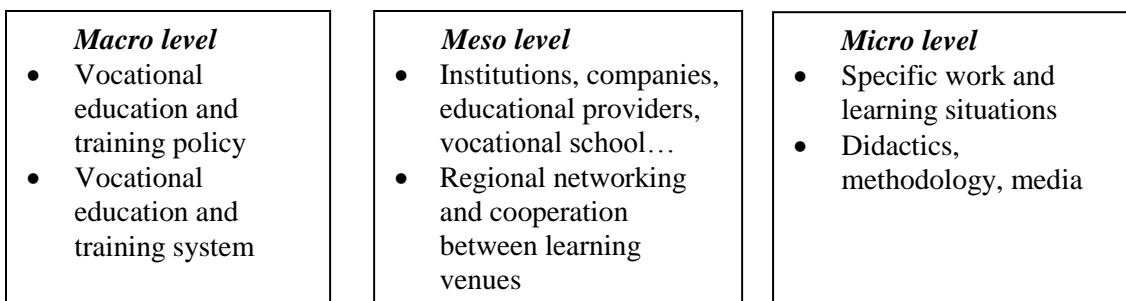
#### 4. Vocational Education and Training for Sustainable Development

The latest decade has seen a significant return of interest in vocational education and training (VET) in the international policy debates. UNESCO has major reports about this subject. In the past three years, UNESCO has announced a new sectoral strategy; a new Inter Agency Group on VET has been launched; and international (e.g., G20) and regional structures have signaled new or renewed interest in VET matters. Education is a motor for change, because of this, the United Nations General Assembly, declared a Decade of Education for Sustainable Development (2005-2014). It has 7 main social and educational titles of aims:

- Fighting Against Global Warming
- Reducing North/South Inequalities and Fighting Against Poverty
- Fighting Against the Marginalization of Women And Girls
- Promoting and improving quality education
- Building public understanding and awareness
- Providing practical training
- Educate through Information and Communication Technologies (ICTs)

Global linkage of regions in which vocational education, industry, university, regional government is vital that they can start and guide learning processes on future about sustainable themes such as food, biodiversity, water and local crafts.

**Figure 1: Levels of implementation of vocational education and training for sustainable development (VETSD)**



**Source:** BWP Special Edition 2009: 57.

The role of education in development is changed by the process of globalization. Knowledge and skills become more important for economic development as countries compete internationally in knowledge and technology - based goods and services. Education and skills become more important for attracting the foreign direct investment, which is one of the primary engines of development for many countries (Little and Green, 2009: 168)

According to Babalola (2003), the rationality behind investment in human capital is based on three arguments:

- i. That the new generation must be given the appropriate parts of the knowledge which has already been accumulated by previous generations;
- ii. That new generation should be taught how existing knowledge should be used to develop new products, to introduce new processes and production methods and social services; and
- iii. That people must be encouraged to develop entirely new ideas, products, processes and methods through creative approaches.

Generally, a big challenge for vocational education is that only students who could not remain in the general education system after primary and intermediate education go for vocational education. Theoretically after completing primary education, a student can choose either general secondary education or secondary vocational education. Practically parents think secondary vocational education limits students' chances to acquire university education which provides access to higher paying and socially respectable white collar jobs. As a result, secondary vocational education is regarded as second class to general secondary education and only academically weaker students, who cannot meet the academic requirements for general education, are driven into vocational education (Mellahi, 2000: 336).

## **5. Vocational Training in Turkey and Europe**

The Turkish education system comprises three main structures: pre-school education; basic education; and general secondary education and vocational secondary education. This system has public and private schools and is centralized by the ministry of education. The

Turkish vocational education systems' weak points are inflexibility and the lack of focus on individual interests and talents. The vocational education system in Turkey is also having trouble integrating with the European Union and catching up with Europe. But its main problem of is the difficulty it has transferring students to the industrial world work life. In this case, VET must be accredited by looking at the Technology Faculties in United States, Art and Design Faculties in the United Kingdom, and Applied Science Faculties in Germany. Therefore, a number of reforms should be carried out for accreditation (Çınar vd, 2009: 162-165).

In order to be successful vocational education and training (VET), students should be classified according to their abilities in a period from primary school to high school as in the developed countries. In this classification, school and family collaboration is vital. Turkey has a young and dynamic workforce as a human capital source.

**Table 1: Size and labor outcomes of vocational education and training for Turkey (2009)**

Age Cohort	% In total population		Employment Rates		Unemployment Rates		Inactivity rates	
	Vocational	General	Vocational	General	Vocational	General	Vocational	General
25-34	12.1	12.9	66.5	58.3	14.1	17.1	22.6	29.7
25-64	8.5	9.9	61.8	55.4	11.8	13.3	29.9	36.1

Source: OECD, 2011 Statistics

\*Percentage of the population whose highest level of education is upper secondary and post -secondary non-tertiary aged 25-64 and 25-34 years old, by orientation and work status.

According to Table 1, if we look at the size and labor outcomes of vocational and general education in Turkey we can see many differences. Unemployment rates for vocational education is lower than general education in 25–34 and 25–64 ages labor force. Also general education is more common than vocational education fort both group of ages. Vocational education have more opportunities than general education in Turkey for both group of ages.

Vocational education appears to be particularly important in those countries where a large proportion of the population has an upper secondary education. In Austria, the Czech Republic, Germany, the Slovak Republic and Slovenia, more than 50% of 25-64 year-olds have an upper secondary education and over 90% of them have a vocational qualification. Young women are also graduating from vocational programmes in increasing numbers. In 2009, on average among OECD countries, 44% of graduates from pre-vocational and vocational programmers were young women; 47% were young men (OECD, 2011). According to Table-2, vocational education is



most widespread in Germany, United Kingdom and Denmark. Turkey has the lowest rate in vocational education student enrollments.

**Table 2: Vocational secondary education student rates - Europe and Turkey**

Germany	65-70 %
United Kingdom	65-70 %
Denmark	63 %
France	42 %
Spain	41 %
Turkey	35 %

**Source:** Yazçayır, N and Yağcı, E (2009), Vocational and technical education in Eu nations and Turkey, **Procedia Social and Behavioral Sciences**, 1(1) , 138-142

**Table 3: Vocational education structures and differences in EU nations and Turkey**

In Germany	Vocational area is 1-3,5 years according to full or part-time programs.
In United kingdom	3 years at schools, employment projects change
In Denmark	3-4 years according to schools and vocational areas
In France	2-3 years according to schools and programs
In Spain	2+2 years, work training changes according to vocations
In Turkey	In Turkey at least 4 years, 5 yeas in Technical and Anatolian Technical High schools
In EU there are education programs for employment vocations, which have standards and which have been approved	In Turkey there are general education programs with no standards and are generally for traditional vocations
In EU nations, there are general education programs that are based on vocational ,have wide –based modular structures and are aimed at specific sectors	In Turkey, there are general cultural and special area programs which complete each other and prepared with linear approach.
In EU nations there is student –centered education with a lot of weight on application.	In Turkey, there is teacher-centered with a lot of weight on theory.
In EU nations there is vertical and horizontal transfer between schools and programs	In Turkey, there is no vertical and horizontal transfer

**Source:** Yazçayır, N and Yağcı, E (2009), Vocational and technical education in EU nations and Turkey, **Procedia Social and Behavioral Sciences**, 1(1) , 138-142

Turkey which faces in integrating with the European Union and having problems catch up with Europe. In France and Turkey administration is centralized, whereas in accordance with EU, vocational education policy it is local in other countries. According to Table 3 Turkish and EU Nations vocational education differs from each other in terms of duration, structure and content.

## 6. Conclusions

Education for sustainable development involves the shaping of values and networking scientific, socio-cultural and philosophical teaching content. Education for sustainable development could create active and responsible citizens ready to address challenges like climate change and to act in problems about environment. Governments are naturally inefficient and ineffective providers and, more generally, the returns to VET are relatively low. Because of this, VET system must be largely privatized.

When we look at the comparison of Turkey with EU in terms of vocational education, we could see a different picture. Vocational education is most widespread in Germany, United Kingdom and Denmark. Turkey has the lowest rate in vocational education student enrollments. Turkey education administration is centralized, whereas in accordance with EU, vocational education policy it is local in other EU countries.

As a conclusion the sustainability of vocational training in Turkey is likely to continue to be problematic so that governments and private sector can do more to support the sustainability of these skills development systems and need to pay attention to both public and private vocational training and education. This action will be a success if we not only contribute to it together as governments, international organizations, universities, private sector and citizens, but also, if we manage to take up the challenges of poverty, gender inequality, illiteracy and youth unemployment.

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