

## Scrutinizing German Education System in Terms of its Effect on Social and Cultural Structure, Employment and Economy

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## Abstract

Education is an important element that determines and influences a country's social, economic and cultural development levels. The education system and the other sub-dimensions existing in the society mutually influence each other and affect the social structure, economy and employment. From this point of view, the aim of present study is to examine the impact of the German education system on the social and cultural structure in the country and its relationship with employment and economy. The data was obtained by literature review and subjected to detailed document analysis. In the light of the data obtained, it was seen that the German education system and the reforms made in the system especially after 2003 affected the traditional German family structure and as a result women took part in the business life more. Another result of the study revealed that the strict selectivity and almost impossible transition between the tracks in German education system has caused a social stratification in German society. On the other hand, it is discovered that the importance of the German education system on vocational education and dual vocatioal education system have made great contributions to the country both in terms of employment and economy.

Keywords: German education system, social structure, cultural structure, employment, economy



# Alman Eğitim Sisteminin Sosyal ve Kültürel Yapı, İstihdam ve Ekonomi Bağlamında Etkisinin İncelenmesi

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Öz

Eğitim, bir ülkenin sosyal, ekonomik ve kültürel gelişim düzeylerini belirleyen ve etkileyen önemli bir unsurdur. Eğitim sistemi ve toplumda bulunan diğer alt boyutlar karşılıklı olarak birbirini ve dolayısıyla sosyal yapıyı, ekonomiyi ve istihdamı etkiler. Bu açıdan bakıldığında, bu çalışmanın amacı, Alman eğitim sisteminin ülkedeki sosyal ve kültürel yapı üzerindeki etkisini ve istihdam ve ekonomi ile ilişkisini incelemektir. Veriler literatür taraması ile elde edilmiş olup detaylı doküman analizine tabi tutulmuştur. Elde edilen veriler ışığında, Alman eğitim sisteminin ve özellikle 2003'ten sonra sistemde yapılan reformların geleneksel Alman aile yapısını etkilediği ve bunun sonucunda kadınların iş dünyasında daha fazla yer aldığı görülmüştür. Çalışmanın bir başka sonucu da, Alman eğitim sistemindeki kademeler arasındaki sıkı seçicilik ve neredeyse imkânsız geçişin Alman toplumunda sosyal bir tabakalaşmaya neden olduğudur. Öte yandan, Alman eğitim sisteminin mesleki eğitim ve ikili (dual) mesleki eğitim sistemi üzerindeki öneminin hem istihdam hem de ekonomi açısından ülkeye büyük katkılar sağladığı görülmektedir.

Anahtar Kelimeler: Alman eğitim sistemi, sosyal yapı, kültürel yapı, istihdam, ekonomi

#### Introduction

Enabling the societies to progress and develop in the social, cultural and economic fields, education can be said to be a process that serves the individuals of that society throughout their lives. Thus, it is important to organize and renew education to meet the needs of people and society based on new and contemporary developments. Training the human capital in the society according to the requirements of society and business life, and to equip it with scientific and technological information can be possible via a quality education (Gültekin and Şengül, 2006).

The educational institutions that mediate the socialization of the individual in the society and the adoption of social and cultural values are said to provide the continuity of the social structure (Nkfu, 2019). Even, education-for many years- has been considered as a system that aims to educate individuals who are the determinants of the ethical rules and the economic and political structure of the society and that will maintain the social order. Similarly, the well-known French sociologist Durkheim described education as a function of society and expressed the purpose of education as adapting the social and political structure to the society in which individuals live (Felsefe, 2019). Furthermore, Bottomore (1962, as cited in Tezcan, 1978) views education as a means of providing social control. It is observed that education, which is a social institution, has in a way a relationship with culture and social values. The causal relationship between culture and education which is a complex phenomenon can be compared to the relationship between "chicken" and "egg" (Giorgetti, Campell and Arslan, 2017). Through culture, education is created, developed and it attains a rich structure and it's preserved and handed down to new generations. Therefore, when determining the educational and cultural policies, it is necessary to pay attention whether they are in conformity with social structure, needs and objectives (Yaka, 2018). The mutual relationship between culture, social groups and institutions is called as social structure (Güneş, 2017) and performs functions such as production and sharing of goods and services (Webders, 2019).

As in the cultural dimension, education has a direct and / or indirect relationship with the economy. Çakmak (2008) and Elibol (2004) stated that the productivity in the society is parallel with the education levels of the individuals, and that they can contribute to the society to the extend od education level they receive. According to Korkmaz (2006 as cited in Öz, 2014), the relationship between education and economy can be expressed as follows: The contribution of education to *production* is in the way it trains qualified people the economy needs. The *cost of education* is the provision of operating services and benefiting from them. Expenditures on education. Education has to bring income both to the individual dimension and to the social dimension. The demand for education and supply of education is related to the economy.

Societies in which education is strong and developed, the labor force and employment of labor force is an important factor for the economy and plays an important role in social development (Demir, 2010). Skilled human capital ensures efficiency in labor force and thus growth in economy. Because, well-educated human capital is powerful in grasping, analysis and synthesis aspects, easygoing and team player, and knows where and how to reach the information. As a result of all these qualities, it will naturally be reflected in the economy as a positive value with its positive effects (Hurriyet, 2014). Accordingly, Adıgüzel and Berk (2009) have stated that the qualified labor force that can adapt to different situations, are problem solvers, have an effective communication with their environment, work in harmony with the group, and possess the knowledge and skills required by the work, has a key role in development. The quality of human resources in a country is one of the indicators of development in that country.

Today, the change and transformation of information and technology has opened the door to a change and transformation in the economic field. Businesses now need to produce a wide range of products and services both on time and without compromising on quality. As a result, the need for the human capital with technological knowledge, the ability to use and implement it, and to create efficient and qualified service has increased (DPT, 2001 as cited in Taş and Yenilmez, 2008). Training of human capital in the most qualified form possible, and the development and renewal of their qualifications are important tasks undertaken by the education system. Higher education institutions generally train human resources with higher qualifications, while vocational schools and vocational and technical education institutions tend to train more intermediate staff (Taş and Yenilmez, 2008). In short, education is a system that has functions such as socialization, transferring cultural heritage from generation to generation, developing the economy and raising human capital power (Akhundova, 2012). Considering all the points mentioned above, the present study aims to scrutinize the effects of German education on German social and cultural structure, the employment throughout the country and national economy.

## A Brief Glimpse At History, Culture And Economy Of Germany

Germany, with a history dating back to Celts and various Germanic communites, was the scene of such striking events as its defeat in World War I, Adolf Hitler's succession to the power as a dictator, its seperation after the defeat in World War II, the abolition of Berlin Wall and its reunification in 1990 (Blogcu, 2009). Germany, with its wide territory, has different climate types and a rich geography due to its location. This climate diversity and rich geography enable the country to host many types of animals and plants. There are quite a lot rivers throughout the country, and these rivers bear very important functions for transportation and shipping (Almanya, 2011; Coğrafya Dünyası, 2019).

Thanks to migrations throughout the history, it has had a wide-range of constantly changing and growing dishes in its cuisine (Das Zeitung, 2016). It's observed that strict German discipline has covered almost every sphere of life from traffic rules, apartmant life, shopping so on (Dagdeviren, 2017; Ef Blog, 2018; Çöpüne Sahip Çık Vakfı, 2018; Koseoglu, 2011; Yılmaz, 2017; Erkan, 2013) to child raising (DigitalTallks, 2016; Usanovic, 2015; Aylak Karga, 2015). A member of many national and international organizations and with a remarkable place in world economy and politics (HozirOrg, 2017), Germany is a strong country in the field of economy and finance thanks to large companies that are globally recognized and have a say in global markets (Facts about Germany, 2018).

## Focal points in German education system

The history of German education can be dated back to the period when Prussian King Frederick made education compulsary from age of 5 to 13-14 in 1763. After this date until the unification of Germany in 1990, important developments in the history of education can be seen. A few of these developments can be listed as: In 1920, four-year compulsory primary school went into effect. School attendance was compulsory until the age of 18. Another important change was that primary school teachers had to enter the university entrance exam, the Abitur. According to the report on the current education system in the country in 1964, it was found that there were inequalities between the regions and there were deficiencies in various subjects such as the number classrooms. In 1990, Germany seperared into 16 states (Lænders) and after that the states became responsible for education (StateUniversity, 2018).

In Germany, it is compulsory to comply with the Bildungstandards (education standards), even though the education programs are in the jurisdiction of the Ministries of Education and Culture (EP-Nuffic, 2015; KMK, 2016). The foundation of the German education philosophy is based on the "provision of an appropriate education for each individual according to his / her ability and interest" (Acar, 2012, p.4). The organization and structure of educational levels in the Federal Republic of Germany consist of 4 stages: preschool education, primary education, secondary education, higher education and addition to this four levels, there is continuing education (KMK, 2016). Compulsory education starts at the age of 6 and usually lasts until the age of 15. Preschool education is not part of the compulsory education system and is usually provided by churches or social institutions. Primary education starts at the age of 6 and lasts 4 years in most states (6 years in Berlin and Branderburg). After primary education, there are different secondary education institutions and tracks for students. Hauptschule is the lowest track and prepapers for vocational training. Students attending this school are trained to work in trade and industry. Realschule is the highest and most popular level of vocational educational track. Gymnasium is an academic track and prepares for university education. Gesamtschule is the school that combines all the tracks described so far (Fidler, 2017).

The 5th and 6th grades are composed of an observation and guidance period, effective in determining which institution and track the student is going to proceed in secondary education based on teacher's observation reports and grade points averages. Those with a grade average of 3-4 go to Hauptschule, while those with a grade average of 2-3 go to Realschule and those with 1-2 average proceed to Gymnasium (Wordpress, 2010). The general education qualifications certificate can be acquired after grade 9 or 10. This certificate can also be taken by attending evening courses or vocational schools. In order to pass to the high school section of the Gymansium, which is called academic high school and mostly educates students for universities, it is necessary to take a proficiency exam. Those who are successful in the first stage of secondary education in Gymnasium continue in this track and others tranfer to full or part time vocational education. In the Gynmasium, after the 12th grade a diploma is given which entitles students to attend vocational high schools, and at the 13th grade they take Abitur to enter the university. Realschule is a school providing vocational and general education. This diploma is required in order to work in a medium-level economy and public service. Those who are very successful in Realschule can go to the Gymnasium. Mittlerer Schulabschluss (secondary school graduation certificate) can be obtained at the end of the 10th grade. This diploma allows for further vocational education, such as Berufsfachschule and Fachoberschule (KMK, 2016).

*Vocational education:* In Germany, vocational training is mostly based on the cooperation between vocational education institutions and the business world. This system is defined as "Dual System". This system for secondary education graduates is carried out in vocational schools (Berufschule). According to this system, the practical part of the training (3-4 days) is fulfilled in the company, the theoretical part (1-2 days) is carried out in schools. This education takes 2-3-5 years and students join the system at the age of 12 and graduate at 18 (Kubat, 2016).

*Higher education*: There are 3 types of universities in Germany in general.

1. University and Equivalent institutions (Technical Colleges, Technical Universities, Education Colleges, Theological Colleges): Universities and equivalent institutions in higher education generally offer a range of courses such as languages, humanities and sports, law, economics and social sciences, natural sciences, medicine, agriculture, forestry,

and nutritional sciences and engineering sciences (EuroEducation, 2018).

- 2. University of Applied Sciences (Fachhochschulen): Such courses as agronomy, forestry, nutrition science, engineering sciences, economics / economic law, social work, public administration, justice management, information technology, computer science, mathematics, natural sciences, design, information and communication studies, nursing and management in public health system are available (EuroEducation, 2018).
- 3. Art, Music and Film Academy (Kunst, Musik-und Filmhochschule): Courses like music studies in various schools, music education in general education schools, music education and technical music professions (eg. sound engineering), visual arts, design, photography, theater, opera, musicals, dance, directing and filmmaking, architecture, media courses and applied arts such as film, television, media studies, media art, animation and media management are provided (EuroEducation, 2018).

## Methodology

Previous studies and researches, new and up-to-date sources on the subject of the study allow to base it on the past studies and scrutinize it with all aspects in the light of the new information (Özdamar, 2003; Balcı, 2001). Therefore, the *literature review method* was used to obtain the data in the present study. Literature review contributes to the understanding of the chosen study and its placement in a historical perspective (Karasar, 2015). According to Adler and Clark (2011), *literature review* is not only a process but it is also coming up with a product. That's to say, it is carrying out something and creating something at the end of the process. It is "searching, reading, summarizing and synthesizing the present works about a topic" (as cited in Leavy, 2017, p.56). Two important steps in literature reviews can be stated as follows: **i**) after determining the research topic, **it** is important to search databases through keywords related to the topic. **ii**)

down research findings and conclusions reached in these articles and materials (NCC Library, 2019). In the present study, after making the research topic definite, some key words were created (*German education system*, *social structure in Germany, employment and vocational education in germany* and so on). Then some important databases like *ERIC*, *Wiley Online Library, Taylor and Francis Group Publisher, SAGE Publication, Google Scholars, ELSEVIER, internet based websites* and so on were searched via the keywords created. Thesis, articles, research findings, reports published by national and international organizations were collected and analyzed.

### **Discussion and Conclusion**

After the bad results in PISA examination in 2001 (Chen, 2014), a series of reforms were made in the field of education. One of them is the opening of full-time schools. In this context, an investment program was started in 2003 and 4 billion Euros were allocated. In line with this aim, 10,000 fulltime schools were planned to be opened in the country at first (DW, 2003). However, full-time schools turned out to lead to a change in the role of child raising and education in the family. As Augustin-Dittmann (2010) stated, the spread and development of full-time schools has led to a change in school policy and later in the field of family policy. On the one hand the traditional half-day school system has changed visibly and changed the social policy and education system, and on the other hand influenced family policies and underlying gender relations. Women were expected to stay at home and look after their children. Even, according to an old German saying, the task of the woman was called "Child, Kitchen and Church" (Kinder, Küche und Kirche) (Knowledge@Wharton, 2003). Today, a woman is appreciated both to be a mother and to take part in business life. It can be argued that the previously adopted conservative family ideology has been abandoned. According to Züchner (2009), fulltime schools promote mother's engagement in business life. Full-time education services, especially in primary schools, initiated women employment remarkably and provided its expansion. 35% of mothers whose child attended full-time schools were observed to start working again. In addition to this, it was found that mothers of children attending full-time schools started academic studies or advanced career education as well as

their work life. As a matter of fact, analyzing the data of the German Statistical Institute, it is seen that the employment of women between the ages of 25-55 in 2016 is approximately 72% (DeStatis, 2018). Despite the positive effect of all these developments, it can be suggested that it resulted in a low birth rate among women with university degrees and thus led to an increase in the elderly population. To prevent this, the government enacted a law on 1 January 2007 to encourage working women to have children. According to this law, working women should stay home for a year and look after their children and in return, they will be able to collect  $\notin$  1,800 a month from the state (Knowledge@Wharton, 2003).

In the studies conducted (Meyer, 1977; Kerckhoff, 1995; van de Werfhorst and Mijs, 2010), it was revealed that the institutional arrangements made in the education systems are very important in terms of education and social stratification processes in societies. It was discovered that the German school system has been also highly criticized for being very selective. In the highly differentiated tripartite German school system, in most states, pupils are often selected to different school tracks at a very early age of 10. The transition to higher education is through the acquisition of Abitur, a high school graduation certificate. Among those entitled to higher education, a large number of students choose to join the dual system of apprenticeship training (Schindler and Reimer, 2011). Gymnasium for the bright children of the academic families, Realschule for the middle class children with the chance to go to the Gymnasium if they successfully finish this school and the *Hauptschule* for the lowest level. At the end of the age of 10, children enter one of these tracks and usually stay there. In fact, this, in a way, means that their future is predetermined at a very early age (OECD, 2016 as cited in Fidler, 2017). Finishing school, some Hauptschule graduates may find an apprenticeship to blue collar positions, while the less successful others will have the chance to attend a series of vocational training courses (Baker, et al. 1985). Students, with low-status and lesse talents, with immigrant backgrounds, from families with inadequate qualifications and unemployment, or from most disadvantaged groups without a secure job, enrolled in Hauptschule schools (Solga, 2008; Powell, 2009 as cited in Below, Powell and Roberts 2013). In contrast, Realschule opens the door to a certificate for white collar apprenticeships, business and / or skilled trade apprenticeships; it has become the actual minimum

school completion degree for most professions. On the other hand, Gymnasium provides the required degree (Abitur) for university entrance after 12 or 13 years of education. It is a selective, arduous and demanding school track that is a way of working in classical professions such as medicine, law and teaching (Below, Powell and Roberts, 2013). As a result, students with higher social background are more likely to enroll in a university, while a student with lower social background is more likely to enter the university of applied sciences (Müller and Scneider, 2013). Thus, it can be argued that groups in strict school systems affected by social selection, groups (blue-collar workers, less educated families in rural areas, and men as in the case of Germany) lack representation. Therefore, it is important to make the transition systems more flexible and more open to the students from different social backgrounds and environments in the education systems where educational content and structure lead to social injustice (Below, Powell and Roberts, 2013).

The fact that German apprenticeship system has been criticised (Müller and Pollak 2010; Powell and Solga 2011; Shavit and Müller 2000 as cited in Protsch and Solga, 2015) because it directs working class children to apprenticeships and hinders their "transition to higher education" can be said to illustrate a social stratification caused by the selectivity in the German education system and the almost impossible transitions between tracks.

In individualist cultures, the individual interests of the individual and his immediate family (underlining individual rights, not individual responsibility), personal autonomy, privacy, self-realization, individual initiative, independence, individual decision-making, personal identity are emphasized rather than concern for the needs and interests of others (Darwish and Huber, 2003). In Germany, which has an individualistic social structure (Hofstede Insights, 2018), it is seen that the culture of child raising is based on the development of independence and responsibility awareness (DigitalTalks, 2016). Reviewing the general objectives of the curriculums from pre-primary to high school (common points: preparing students for the future, being autonomous and being a responsible individual of the society) (Atmacasoy, 2017) it is seen that this reflects significantly the education system. As a matter of fact, it is uncovered that the aim of the German education system is to ensure that young people are able to take responsibility in democracy and to become adults (İşte Almanya, 1999, as cited in Genç, 2004). It is seen that the German secondary education program includes general objectives such as ensuring the students to understand the link between globalization, economic development, consumption, environmental pollution, population development, health and social conditions through sustainable development education (Atmacasoy, 2017). Considering the punishment of those who do not dispose of their garbage in recycling bins (Çöpüne Sahip Çık Vakfı, 2018), the traffic rules being quite strict and the fine for those failing to comply with them (Erkan, 2013) along with the social and cultural practices, it is clear that these objectives of the education system spread to both social and cultural spheres.

One of the main objectives of education systems and policies in contemporary information societies is to provide a well-trained workforce and to equip individuals with skills that will enable them to participate in an increasingly interconnected global economy and eventually to transform better jobs into better lives (OECD, 2013 as cited in Tsiplakidesi, 2017). The qualified manpower called human capital is possible with a qualified and well-planned education system (Öz, 2014). The education system provides the appropriate source of human capital required by the country's economy, while also equipping individuals in accordance with the values of the current economic system (Yigit, 2019) and new knowledge, skills and qualifications required in the production process are acquired through education (Pınar, 2017). Economic development means more business, employment and profession. It can be said that vocational and technical education is one of the most important locomotives of production (Eksioğu, 2017) and the factors that boosts the development of economy (Koçel, 2004 as cited in Özsoy, 2015). In this sense, having an occupational-oriented apprenticeship system that facilitates the transition from school to the labor market (McGinnity and Hillmert, 2004 as cited in Tsiplakidesi, 2017)- even if it has a negative aspect in terms of social stratification as mentioned above- attrributes an important role to German education system in the national economy and employment. Indeed, according to Witte and Kalleberg (1995), the German economy owes its fame to the vocational education system that trains the skilled workforce in terms of productivity and quality.

The majority of students in Germany who have completed general education are directed to apprenticeship or pre-vocational education programs (Solga, 2008, as cited in Below, Powell and Roberts, 2013; Altay and Üstün, 2011). In this system, which is called Dual System, students are educated at work and vocational school. In Germany, vocational training is one of the most effective ways of obtaining qualified personnel according to companies, so about 50% of individuals who leave the school are subject to vocational training by companies. This training within the organization equips the individual with professional experience and the employment opportunities of the young people with such education are increasing. In the dual vocational education system, there are 350 kinds of professions that are valid in all kinds of economic fields and these trainings continue between 3-5 years. Since the training, exams and certificates in this system are made according to a certain standard in each sector within the country, the employer can figure out what kind of training and what kind of knowledge and experience they have from the certificates obtained by the apprentices (Germany Federal Ministry of Education and Research, 2016; 2017 as cited in Aydın, 2017). Thanks to this system, businesses can not only save the costs of hiring, but also eliminate the risk of hiring unskilled employees (in Ekşioğu 2017).

Dual vocational training is of great importance for Germany to become an important industrial country (MEB [Ministry of National Education], 2005) and to have a low youth unemployment rate (Yalçın, 2011 as cited in Ekşioğu, 2017). As a matter of fact, according to the youth unemployment figures of October 2018, the unemployment rate in Germany is 6.1% (TradingEconomics, 2019) and general unemployment figures for December 2018 illustrate that the unemployment rate in Germany is 5% (Investing, 2018).

On the other hand, the studies show that there is a positive relationship between high level of education and growth, and growth and educational expenditures. The large-scale investments in Research and Development (R & D) activities contribute to the growth rates by providing incentives in terms of innovation (Hurriyet, 2014). As a matter of fact, when the investments made for R & D activities in Germany are examined, it is seen that as of 2016, it spent 92,174 million Euros in total: 12,721 million Euros in public sector and non-profit private enterprises, 16,627 million Euros in higher education, 62,824 million Euros commercial enterprise sector (DeStatis, 2019).

#### Recommendations

Based on the data obtained, the following suggestions can be made:

- In the German education system, especially for the Dual System, students are trained and certified for a wide range of business sectors. In this way, qualified intermediate staff needs are met and contributes greatly to employment and economy.
- How sectoral distribution of vocational education and its effects on these sectors can be investigated.
- The distribution of students in educational tracks in terms of social stratification can be examined
- The situation of students from different cultures in the German education system may be the subject of study.

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