Educational Inequality in Turkey: Girls only?

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Abstract

Aim of this study is to ascertain and evaluate the determinants of educational inequality in Turkey. In this study, national and international assessments and research results regarding the Turkish Education system have been examined, determinants of inequality in education were ascertained and evaluations have been performed. Educational inequality in Turkey is identified by three determinants of gender, socio-economic conditions, and quality of schools. Socioeconomic level is in itself an element of inequality and the basic determinants of inequality. It is clearly seen that inequality of income negatively effects education according to the findings. Turkey should therefore take precautions against income inequality and socio cultural structure should also be considered. Quality of schools can change according to region and school types. Analyses of problems in education impacted by economic, political, social, and cultural factors by the Ministiry of Education are the main recommendation of this study.

Key Words: Educational inequality, gender factor, socioeconomic condition, quality, Turkey.

1. Introduction

Human capital which includes factors such as education, work experience, skills and health is one of the basic elements of economic development (Schultz, 1993). For this reason, societies make the connection between education and productivity and believe that an educated society contributes to the national wealth (Wolfe & Haveman, 2002). Educational outputs, student' learning and preparation for life, acquisition of knowledge, skills and attitudes that society requires, undertaking higher education, and finding a highly paid employment are all accepted as factors affecting social development. Therefore, development efforts in recent years within education systems are notable, and in parallel to these global developments, policies regarding people and educational inequality have become even more important.

Equality in education refers to the offering of educational opportunities to everyone on an equal basis and that also extends to mean equality in teaching (Lynch & Baker, 2005). Equality in education is an important principle in order to improve everyone's individual potential and their ability to conduct constructive roles in life. If education cannot be provided equally with in society, then education is no longer a tool to support that society but instead may become a tool which enhances inequalities in society (Barro & Lee, 2001; Gregorio &Lee, 2003; Ram, 1990). Educational equality has a comprehensive meaning and is held in close relation with the term impartiality (Field, Kuczera & Pont, 2007; Boyum, 2014).

State-based educational inequalities are seen directly as a result of actions taken by governments rather than social and/or cultural factors (Tajalli & Opheim, 2005; Lorna, 2001).A state's ability to eliminate educational inequality doesn't just include the offering of training services. If the state can eliminate inequalities of income distribution, then it can overcome inequalities in education (Birdsall & Londono, 1997). Another issue relates to state administrators' visions of democracy. In non-democratic societies, political authorities are not in favor of investing in human capital and education, as economic development requires democratic institutions to be built, as well as an educated social class has a general expectation regarding accountability of the state (Bourguignon & Verdier, 2000; Schultz, 2002). It can be said that, state investment alone in education, cannot address inequalities in education. Other than the equalities instituted by the state, factors such as regional variations, gender, family size, income distribution and income level were determined as factors of inequality in education (Raffo, 2011).

Children of low income families, children living in rural areas or children from families of cultural diversity are considered to be disadvantaged groups regarding educational equality (Hansen, Heckman& Mullen, 2004). Socioeconomic background affects academic success and generally schools enhance this effect (ERI, 2014). Studies show that attending school, being successful, acquiring a social status, job, and wealth is not only a result of individual skill and intelligence, but is also shaped within the family of the individual's environment, socioeconomic roots and features of the social class (Lacour & Tissington, 2011; ERI, 2014).

Other than the sociological features, the effect of family background has significant importance when it comes to educational equality. Family background is not only reflected to the childhood period, but also in decisions made about the child's future (Micklewright, 1989). According to literature, children with higher socioeconomic conditions have higher academic success when compared to poorer and otherwise disadvantaged children. Therefore low-skilled children from families with high levels of income could achieve a diploma in any condition (Checchi, 2008), because financial resources of the family compensate for their children's the lack of academic skill. Furthermore, schools in poor areas are offered a lower quality of education than those in wealthier areas (Chevalier &Lanot, 2002; Lupton, 2004). Academic failure and dropout are mostly seen in disadvantaged groups, and its reflections affect society (Wossmann & Scheutz, 2006). Studies show that educational outputs may differ not only in rural areas, but also in the urban areas too (Raffo, 2011). Therefore we shouldn't ignore family and social environment while examining the area of education.

Social environment is not only a place that social relations occur; it is also like a repository of cultural objects (McDowell, 1996). These cultural objects determine the importance given to education, but it is also possible for this cultural capital to be passed from one generation to the next. This cultural capital mostly reveals itself in rural areas, but also in urban life (Raffo, 2011). For this reason, young people are affected by the socio-cultural features of the environment in which they live (Furlong & Cartmel, 1997). Especially, inequality which is observed regarding the education of females is a consequence of social environment. Female children who face educational inequality are the mothers of the future, and they will be the ones to give birth to the future of society. The importance of education for females has been stated many studies. These studies show that educated women go on to raise healthier children, and that they are going to pass the intellectual properties of themselves on to their children, and as a result, the families' welfare will increase since they are also going to contribute to the family economy (Tomul, 2011). For this reason, to blame educational policy alone for inequality, which is a multi-dimensional phenomena, and on its reasons and consequences, will not fully explain it, nor justly. However, we can say that income and the environment of the child is an indicator if the child is considered equal to others. It is possible to observe these conditions in rural areas as well as underdeveloped urban areas.

Applications of education may differ by country, but its basic similarity is that education of every society aims to deliver quality with equality. But the problems faced in reaching this goal and unresolved issues affect the quality of education. The quality of education and inequality in education is continuously pronounced in Turkey. Inequalities of opportunity in education were determined as family characteristics, access to education, and school achievement by the World Bank (2015). Although the quality of education is measured by national and international evaluation, the determinants of inequality haven't yet been determined. The aim of this study is to ascertain and evaluate the determinants of educational inequality in Turkey by examining national and international data regarding education. Given the focus of this investigation, the following research questions have guided the investigation:

1. Is gender factor a determinant of inequality in Turkish education?
2. Are socioeconomic conditions determinant of inequality in Turkish education?
3. Is school quality a determinant of inequality in Turkish education?

2. Method

This research is a descriptive qualitative study undertaken in order to determine the current status and for the purposes of analysis. Document analysis method has been used in this research. The research data is sourced from international institutes such as European Commission, World Bank, OECD, UN, and the Turkish Ministry of Education (MONE) and other national non-profit research organizations like ERI and TEDMEM since access to the latest statistical data is required. Reports and documents published by these organizations have been cited throughout the analysis.

All data and reports were analyzed and evaluated step by step as in accordance with Bogdan and Biklen (1982), who defined qualitative data analysis as "working with data, organizing it, breaking it into manageable units, synthesizing it, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others". Data in this study was divided into groups and evaluated according to sub-problems. Some numeric data was tabularized and commented on, and data from national and international assessments and research reports were examined and evaluated. It was accepted that the data obtained and the conclusions of the reports are suitably qualified in order to formulate generalizations, and that the results are consistent with the aim and sub-problems of the study. It must be stated that data from the Ministry of Education is limited in availability, even though the Ministry of Education is responsible for the formation and delivery of education in Turkey. It is understood that most national data and reports have been prepared instead by research institutions.

3. Findings

According to the findings obtained, educational inequality in Turkey is assimilated into three determinants; as gender factor, socioeconomic conditions, and quality of schools. These determinants are further described in the following sub-sections.

3.1. Gender factor

In Turkey, in the 2013-2014 academic years, overall preschool education of five year group's schooling is 45.5 %; this represents 94.5 % for elementary school students (European Commission, 2014) and 59% for secondary schools students. In comparison to Turkey's 45%, the overall percentage among OECD countries is 83 % (OECD, 2014). The percentage of girls not enrolled in preschool or elementary school is higher than for boys. Although gender diversity in secondary education has reduced, gender inequality, especially in the eastern region of Turkey is still at a considerable level (European Commission, 2014). According to a report from ERI (2014), in the 2012-2013 academic year, especially at the secondary school level, while the difference in school enrollment between genders doesn't exceed 3-4 %, there is 7-8 % higher school enrollment for male students' over female students' in the eastern regions. While the probability of female students' being out of school is the same as males' at the elementary level, it was observed that females, especially in eastern Turkey, have a higher probability of being out of school at the secondary school level. Dropout levels at the secondary school level is higher for males all kinds of schools.

The gross schooling ratio in primary education only exceeded 100% for males. The ratio for females is still at an insufficient level from primary education right through to higher education. Also Turkey is still well behind European countries in terms of gender parity index at all stages of education, and also for the expected number of years of females' formal schooling from primary school to higher education (Maya, 2014). The education level of females and males is very low in the eastern region in general. Educational inequality is particularly prominent in the eastern provinces of Turkey. In summary, gender factor is a clear determinant of inequality in education in Turkey, as highlighted by the schooling ratio of males compared to females.

3.2. Socioeconomic conditions

Poverty indicators for Turkey, with its population of 76 million are already lower than the EU and OECD average. The average annual income per person is US$ 10.515 (World Bank, 2016). Turkey is also ranked 72nd in the world in the Human Development Index (UNDP, 2015). Considering the income distribution data in Turkey, the differences in income distribution is noteworthy. The richest 10 %of the population has 30.5% of the income, whereas the poorest 10 % has just 2.2 % of the income (World Bank, 2015). While the average Gini coefficient in OECD is 0.31, it is 0.41 in Turkey (OECD, 2015a-b). In a country where the Poverty line for a four member family is 3.523 TL, it is not possible to discuss the parents working for a minimum wage of 1.000 TL (453 $) and spend for education. In comparison to this, there are families with a very high level of income in this country. With a total of 14.774.830 school students in Turkey, 823.515 (MONE, 2015) are being privately educated in elementary, secondary and high schools with an average annual fee of US$ 10.000 (29.000 TL). Two indicators within the scope of socioeconomic conditions are of significance here: the education level of parents and their income level.

There is a meaningful difference among the education level of parents in terms of education spending. Education spending of families varies by their education level. It is understood that parents who graduated from university are prepared to pay more for their children's education than non-graduate parents.

It should be noted that parents who graduated from university generally have a much higher income level in Turkey according to the distribution of income in Turkey. The top quintile spends 8.07% of their total income on education, culture, and medical service. Also, the top quintile spends money for education twenty-one times more than do the lowest quintile. Household income of the top quintile is more than ten times that of the lowest quintile. It can therefore be said that this result causes educational inequality in Turkey. Also, this result is a reflection of income inequality in education.

Economic conditions in Turkey seem to correlate with the consequences regarding education. Studies which are directly connected with these consequences are PISA and TIMSS. Turkey has a below-average success rate considering PISA results. Turkey is a country for which the effects of socioeconomic conditions are above average in these assessments. When the difference of location is considered, the level of success is below average for Turkey in rural areas (Berberoğlu & Kalender, 2005). In addition, study conditions in the home, number of books, and parent' level of education also affect the academic success of children. As the socioeconomic level of families increase, it seems that students are more successful in the tests (ERI, 2014). According to TIMSS results, the student ratio for low levels of educational sources in Turkey stands at 54 %, but this ratio is 21 %as an international average (Mullis, Martin, Ruddock, O'Sullivan & Preuschoff, 2009; Foy, Arora, & Stanco, 2013).

The probability of school enrollment decreases for children whose parents are less well educated. It is observed that the family's level of education has a serious effect on schooling, especially at the secondary school level. For this age group, schooling probability increases 30 % if the mother is a university graduate, and 24 % if the mother is a high school graduate. Although whether or not the father has a university or high school degree has an impact of over 20 %, it can be said that the impact of the mother's education level is significantly higher on the probability of their children attending to school. In a research conducted in Turkey, there is an 11% increase in the probability attending to secondary education for children from a high income family. Where the parental level of education is secondary school or higher, this increases the probability to 20 % (Mete, 2004). In another study, a relation was found between the socioeconomic level of families and the ability of their children in reading, writing, and math. As the socioeconomic level of the family increases the success of the student in PISA tests also increase (Yalçın, Aslan & Usta, 2012). In other words, students' economic, social, and cultural lifestyle, and the quality of their cultural life, increases their academic success. However, there are also successful students among socioeconomically disadvantaged children too, and the ratio of disadvantaged successful female children is higher than that of males. This situation shows that more female students have success in overcoming their socioeconomic back grounds than male students (Fındık & Kavak, 2013). To summarize, socioeconomic conditions are determinant of the inequality in education in Turkey.

3.3. Quality of schools

Another reason for inequality of education in Turkey is a difference in the quality of schools. This difference is based on a number of reasons. When the number of teachers and classrooms in schools are considered, the schools with the least number of classrooms and teachers are found in the big cities and and also in the eastern provinces of Turkey (MONE, 2015). Eastern cities and small town schools in rural areas are in need of more libraries and classroom laboratories. Eastern provinces are also still considered far behind western provinces of Turkey in the Socio Economic Development Index. When interregional difference is considered, most of the low scores of PISA and TIMSS are to be found in cities and small town schools of the eastern provinces.

Most of the successful students of Turkey are from western regions. There is about 50 point gap among students. The same results are observed in the university entrance examination scores. Therefore it can be said that quality of schools can change according to region, and that schools in the Eastern provinces are of a lower quality. Another problem is a lack of educational tools insufficient resources are provided, especially to schools in rural areas (Özpınar & Sarpkaya, 2010). Studies show that city schools have a higher level of educational tools than village or small town schools. The educational tools found in private schools are more than in state schools, but state schools attended by children from socioeconomically high families are not in need of educational tools (Fidan, 2008).

Schools in Turkey have serious problems regarding educational tools and equipment and physical conditions. The schools are also in need of teachers as well, with a significant difference between Turkey and the OECD. Another dimension related to the quality of schools the types of schools. Secondary education in Turkey is formed of general, and vocational and technical high schools. Vocational and technical high schools have a low level of success (Berberoğlu & Kalender, 2005).

Students who study at vocational schools are generally from a low socioeconomic level, are educated to a low level, and are from families with many children (Kaya, 2005). Since these children were not successful in primary education, they study at vocational schools in order to be trained for employment and therefore to start their working earlier that those continuing their education. The problems of vocational education are deficiencies in the curricula, a lack of infrastructure, and the use of out of date technology (Şahin & Fındık, 2008).The most successful schools in Turkey are high schools that require high test scores and primary and high schools who select teachers and students according to their level of performance. Parents of students at these schools are generally well educated and from a high economic level.

The most successful schools are science high schools, based on the math point average according to PISA for 2012. From the same assessment, it is seen that the most unsuccessful schools in Turkey are vocational and technical high schools. Diversity among schools causes 62 % of differences in the Mathematics rate according to PISA for 2012. This ratio is generally about 37 % in OECD countries (MONE, 2013). The quality of schools can change according to region and type of school. It can therefore be said that the quality of the school is a determinant of inequality in education in Turkey.

4. Discussion and Conclusion

The aim of this study is to ascertain and evaluate the determinants of educational inequality in Turkey. As a result of evaluating national and international data and reports, educational inequality in Turkey can be stated in three determinants as gender factor, socioeconomic conditions, and quality of schools. In participating education, female and male students experience problems, as in this dimension, inequality is not only towards females. However participation of females in education is less than males. This ratio increases in rural and urban areas where education and socioeconomic levels are found to be lower. Therefore, it can be stated that there social inequality for females and children in rural areas. The Turkish state which has a low record regarding democracy and human rights, has made some attempts with projects named “Father, send me to school”, “Girls, let’s go to school”, and “Project for improvement of primary education”, which aimed to deliver tablet PCs to all students, and increased compulsory education to 12 years. The Turkish Government provides scholarship for female students who live in the cities of eastern Anatolia. However the policy of financial transfers has not influenced and increased in schooling achievement (Chevalier & Lanot, 2002), nor has this implementation been enough to change education indicators (European Commission, 2014). Therefore, the first recommendation of this study is that females must be required to participate in education and to attend their classes. The opinion of the Government about women is important in terms of increasing this probability.

The quality of schools and education expenditures change according to school type and the social environment in which the school exists. In urban areas, the education quality is better private schools and those schools who select their students through entrance examination. The children attending vocational and technical schools live in marginal regions of urban and rural areas and have low level academic success at the primary education level. The families of these children have low levels of education and income. It can be said that the children living in marginal regions have low quality education and that the education expenditure on these children is less. Determinants of inequality are in close relation with socioeconomic conditions within their general properties in Turkey. Children with low levels of socioeconomic conditions participate less in education; and especially females living under these conditions have problems participating in education. Academic success is low for students who live in low level socioeconomic conditions in either urban or rural areas. Furthermore, these students attend either vocational-technical schools or schools that don’t select their students with an exam. Cities in eastern Turkey have low level socioeconomic conditions. Failure of the children in national and international examinations continues year on year. It should be emphasized that children who are not from the same conditions take the same test. The children who fail this test attend vocational schools or to schools requiring a lower test score. A similar situation occurs with the university entrance exam, where all high school graduates undertake the same test and determine their own career course.

It is possible to say from the results obtained that, socioeconomic level is an element of inequality itself, and also the major reason of other inequality dimensions for Turkey. Differences in income, resources, power and status within Turkish society are also a cause of socioeconomic inequality (European Commission, 2010). At this point, the equality concept together with equity concept should be considered by policy makers and decision makers in the provision of justice of income.

Education, as a fundamental human right, accelerates human development as well as economic growth (Klasen, 2002), and especially when educating females, the results directly increase income and growth (Doepke & Tertilt, 2009). With a 0.41 Gini coefficient (OECD, 2015b), it seems that to prevent educational inequality in Turkey inequality of income needs to be eliminated (Teuling & Van Rens, 2008). However taking precautions regarding distribution of income doesn't seem enough for Turkey. Educational inequality is the source of both social and economic inequality (Tomul, 2011).For this reason sociocultural structure should also be considered. Traditional approaches towards the inputs of sociocultural structure also affect the point of view of education for families. Equality in education for Turkey is likely to remain relevant to Turkey until societal and socioeconomic inequity are ended by the Government, and the Ministry of Education eliminate curricular inequity, instructional inequity, assessment inequity and linguistic inequity. Consequently, analyses undertaken by the Ministry of Education on education problems affected by economic, political, social, and cultural factors is main recommendation of this study. However, the Ministry of Education needs stable political and bureaucratic will to deal with inequality. Additionally, inequalities in educational inputs must be eliminated by the Ministry. Adult education of parents, school-family collaboration, creating awareness regarding the downstream effect of women's education societal development may also assist in this change. Private sector and non-governmental organizations can contribute through the provision of educational scholarships to children from financially poorer backgrounds, as well as from donating to schools. Social services such as guidance and counseling can also help with raising the awareness of families and children about education and its importance.

Limiting this study is the fact that the reports and data obtained are based on national and international assessments and research reports. More varied and wide-reaching research is needed on equality, equity, the dimensions of inequality and their reflections on society. However, the study may be seen as an example for future research and contribute to the studies of academicians and those who are decision makers.

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Table 1: Gross schooling rate in Turkey and gender parity index

	Male (%)	Female (%)	Gender parity index (GPI)
Primary education	101	98	0.97
Secondary education	87	77	0.89
Higher education	43	34	0.78
Expected years of schooling	12.4	11.2	-

***Source*:** UNESCO Institute for Statistics, 2011.

Table 2: Education spending by family's level of education

Parental educational level	Primary school spending (%)	High school spending (%)	Per capita income (US$)	Gini coefficient of Turkey
Illiterate	0.1	0.4		
Primary school graduate	0.4	0.4		
Secondary school graduate	0.4	0.4	10.515	0.41
High school graduate	0.9	0.6		
University graduate	3.0	2.2		

***Source*:** ERI, 2014; WORLDBANK, 2016.

Table 3: Ratio and amount of education spending according to household income

Income group (quintile)	Education, culture, and medical services budget allocation (%)	Education expense (20 %=1)
1. Lowest	2.94	1.00
2. Second	4.11	4.49
3. Third	4.99	5.92
4. Fourth	6.23	8.45
5. Highest fifth	8.07	21.37

***Source*:** ERI, 2009.

Table 4: TIMSS math* scores according to geographical regions of Turkey.

Regions	Male	Female
Marmara region	464	470
Aegean region	458	468
Black sea region	457	465
Middle Anatolian region	454	465
Mediterranean region	441	459
Eastern Anatolia region	427	426
Southeastern Anatolia region	411	420

***Source*:** ERI, 2014.

Table 5: School conditions

Year / index value	Educational tools/equipment needs		Physical conditions		Teacher requirements	
	Turkey	OECD	Turkey	OECD	Turkey	OECD
2003	-1.91	-0.31	-1.48	-0.29	-2.21	-0.13
2012	-0.40	0.05	-0.25	-0.03	-0.88	0.05

***Source*:** MONE, 2015

Table 6: School achievement

Type of school	PISA (2012) Math point average
Vocational high school	391
General high school	414
Technical high school	448
Anatolian Vocational high school	450
Anatolian Technical high school	474
Anatolian high school	533
Social Science high school	546
Anatolian Teacher high school	577
Police College	647
Science high school	668

***Source*:** MONE, 2013.