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EVALUATION OF IMPACT TO PISA SUCCESS OF SCHOOL-BASED MANAGEMENT POLICIES

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Abstract:
In this study, countries with the highest levels of achievement according to math and science scores in the PISA exams and countries with the lowest levels of achievement were compared in terms of school-based management policy indicators in education. This research is a quantitative research method. The research is in statistical scanning model. Data are taken directly from EUROSTAT, OECD and PISA database. The educational systems of the countries with the highest scores in the PISA exams and the countries with the lowest scores were compared. It is seen that local governments have more funding for schools, schools have the authority to determine their own teachers, schools have the authority to determine the textbooks, students have the authority to evaluate student achievement and the school budget, and these rates are above the OECD average. In high score countries inter-school disadvantage was below the OECD average. In low score countries inter-school disadvantage was above the OECD average.

Keywords: comparative education, school-based management policies, school effectiveness, OECD countries, PISA exam

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1. Introduction

Many countries around the world adopt local government models that facilitate public participation in management by getting rid of the centralist structure with various reforms in the field of management. These changes in public administration are manifested in education management with different management practices such as localization, decentralization and school-centered approach (Taşçı, 2008). Localization in education has different meanings in the form of transferring the decision-making authority from the ministry to provincial and district national education directorates or school administrations, increasing school participation, strengthening communication between schools, transforming provincial directorates of national education into a coordination center and expanding the authorities of school administrations (Türkoğlu, 2004).

The purpose of decentralization in education is to provide quality and egalitarian education services to students. In terms of schools, it is aimed to have the power to make decisions regarding management, financing, programs and personnel and to reduce bureaucratic obstacles at the central level (Kurt, 2006). Localization in education is to make the way bureaucratic school structures work from top to bottom in a horizontal and collaborative state (Lakes and Carter, 2004). Applications regarding localization in education; authority width can be seen in the form of delegation and school-centered management (Özgen, 2011). It is applied that localization in education in the USA, Canada, European Union Countries, New Zealand and Australia, financing school budgets by local administrations, transferring wide powers to teacher administrations, evaluating student achievement, disciplinary practices, material selection, curriculum determination, school administrators, and provincial or state education authorities. In these practices, the aim can be evaluated as increasing the cooperation by providing the schools to make decisions faster and more effectively and increasing the quality of education services by reducing the disadvantage among the schools.

Education statistics regularly published by OECD, EUROSTAT (European Statistical Office), PISA, World Bank evaluate the educational outlook of countries separately in academic, social, cultural and political aspects. In the literature, different and detailed studies are needed to make a comparative analysis between the data on PISA results and the data on national education systems for socio-economic and political aspects. In this regard, in this study, in the 2012, 2015 and 2018 PISA exams, the most successful countries according to mathematics and science scores and the countries with the lowest success were compared in terms of localization policies in education and disadvantage among schools. This comparative data analysis is considered important in terms of showing the reflection of localization policy in academic success in the field of education.

This study is considered important in terms of showing the reflection of school-based management policy in academic success in the field of education. Comparisons were made in the context of the following questions: according to PISA 2012, 2015 and 2018 math and science scores:

- What is the outlook of high points countries and lowest point countries in terms of local governments' financed to school?
- What is the outlook of high points countries and lowest point countries in terms of the authority to determine schools' teachers selection?
- What is the outlook of high points countries and lowest point countries in terms of decision-making authority in determining of school textbooks?
- What is the outlook of high points countries and lowest point countries in terms of decision-making authority in determining the annual budget of the schools?
- What is the outlook of high points countries and lowest point countries in terms of decision-making authority on student achievement?
- What is the outlook of high points countries and lowest point countries in terms of inter-school disadvantage.

In the context of these questions, country data were evaluated comparatively in separate figures.

2. Method

This research is a quantitative research method. The research is longitudinal pattern in statistical scanning model. In longitudinal model data received from same countries (countries with high PISA success and countries with low PISA success) at different times (PISA 2012, 2015, 2018 results) are compared (Maxwell, 1992). In this context for the validity of the research, the most successful countries in the PISA exam and the last countries in the ranking of success were selected and criterion (purposeful) sampling was preferred (Aypay, 2015; Büyüköztürk, 2018). The reliability of the research has been ensured with resource consistency. In resource consistency, data associated with school-based management has been obtained from various sources (OECD, 2017, 2019; EUROSTAT, 2019) and data in these various sources are consistent. Consistency between data sources increases research reliability (Golding and others, 2001; Maxwell and Delaney, 2004; Aypay, 2015).

3. Findings

PISA 2012, 2015 and 2018 top ten countries in mathematics and science scores, the lowest in the last ten countries and Turkey points from the contribution of local governments to the school budget, school to determine their own teachers, to choose their school books, school to decide its own budget, student achievement assessment issues data on decision-making power and socio-economic difference between schools are shown in figures below.

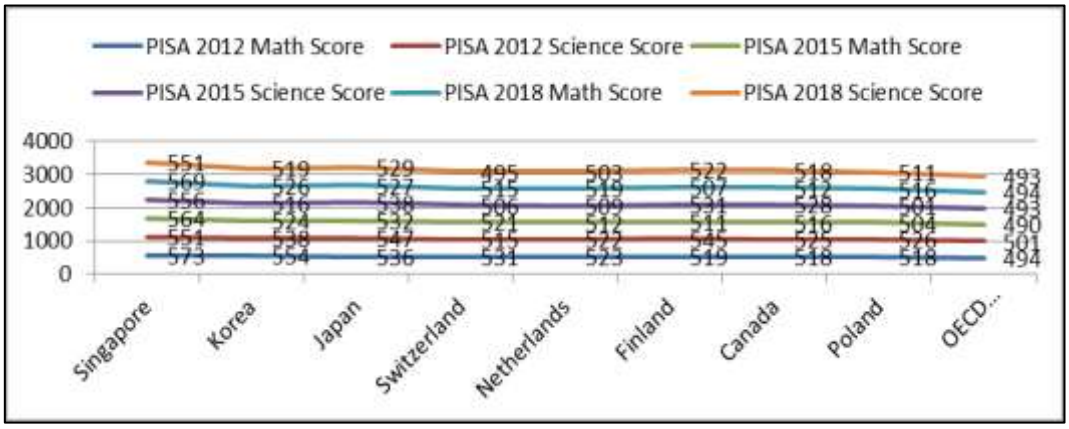

Figure 1: PISA scores of above the OECD average

It is observed that countries with high math and science scores (Singapore, Korea, Japan, Switzerland, Netherlands, Finland, Canada, Poland) with PISA exams (2012, 2015, 2018) are above the OECD average and have a sustainable success.

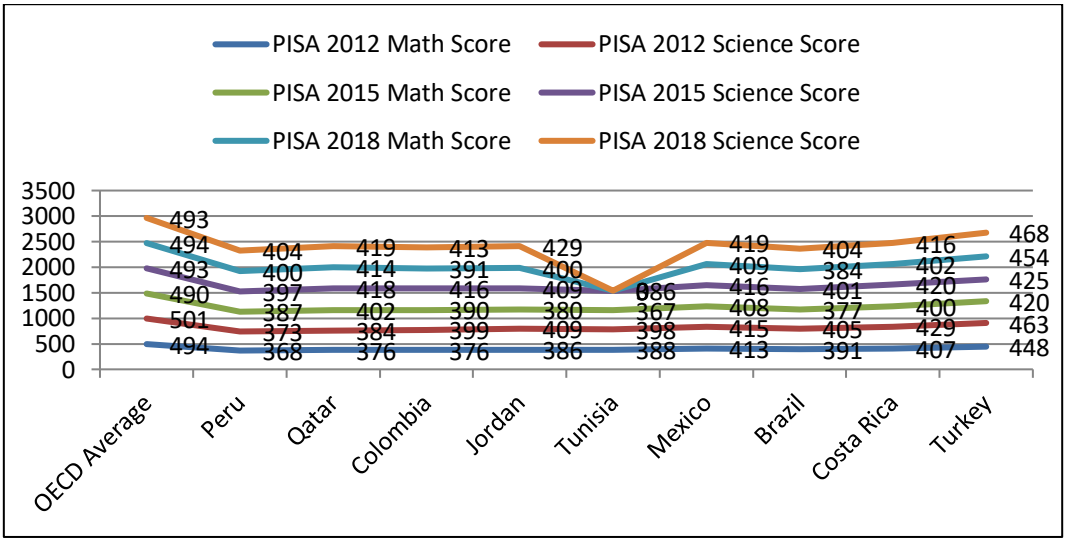

Figure 2: PISA scores of below the OECD average

PISA exams (2012, 2015, 2018) scores of Peru, Qatar, Colombia, Jordan, Tunisia, Mexico, Brazil, Costa Rica and Turkey have been below the OECD average.

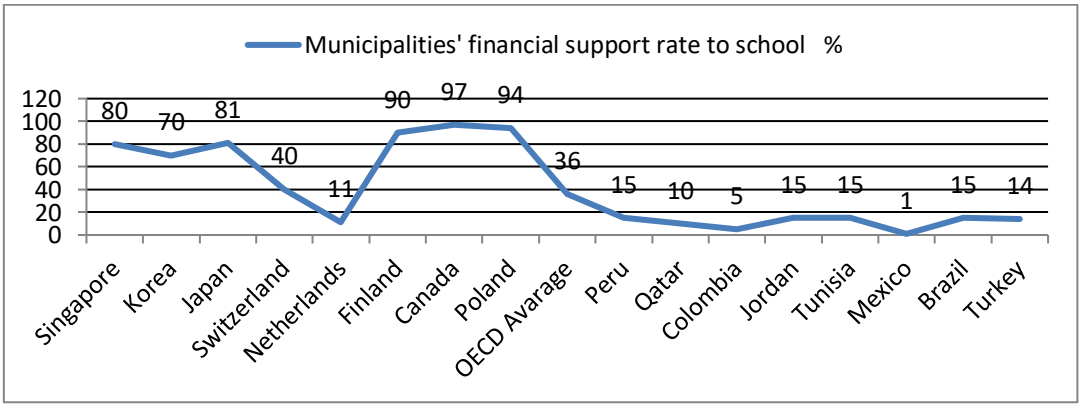

Figure 3: Municipalities' financial support rate to school

In countries with high math and science scores in PISA 2012, 2015 and 2018, local governments' financial support rate to schools and the authority to decide on the school's own budget were above the OECD average. In countries with low math and science scores in PISA 2012, 2015 and 2018, local governments' financial support rate to schools and the authority to decide on the school's own budget were low the OECD average. (OECD, 2012; OECD, 2013).

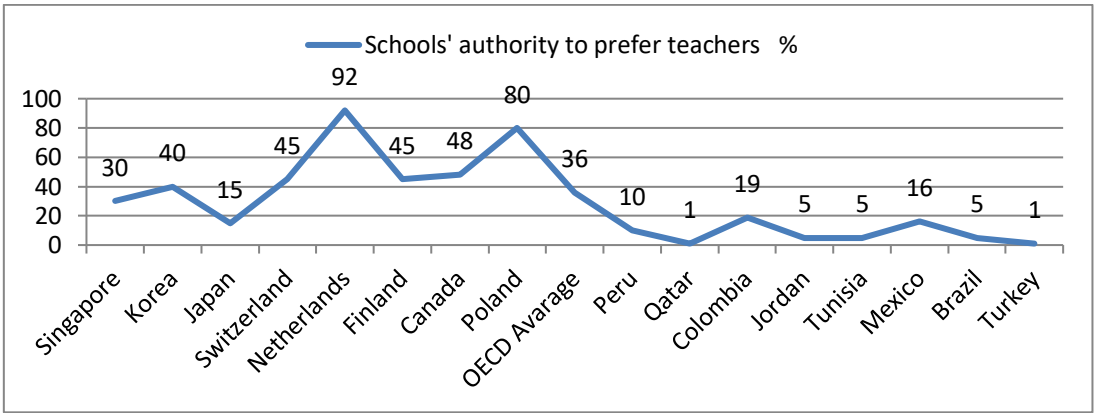

Figure 4: Rate of schools' authority to prefer teacher

Among the countries with high scores in PISA 2012, 2015, and 2018, Singapore and Japan have higher authority to determine the teachers they need, compared to schools in countries with low success, despite the OECD average. In Switzerland, the Netherlands, Finland, Canada, and Poland, the authority of schools to identify teachers in need is higher than the OECD average and all countries with low PISA success. In contrast, in Peru, Qatar, Colombia, Jordan, Tunisia, Mexico and Brazil, the rate of self-determination of the teachers in need of the schools was lower than both the OECD average and the countries with high PISA scores (OECD, 2012; OECD, 2013). In countries with high examination success, there is more transfer of authority to the schools in terms of the authority to determine the teacher they need.

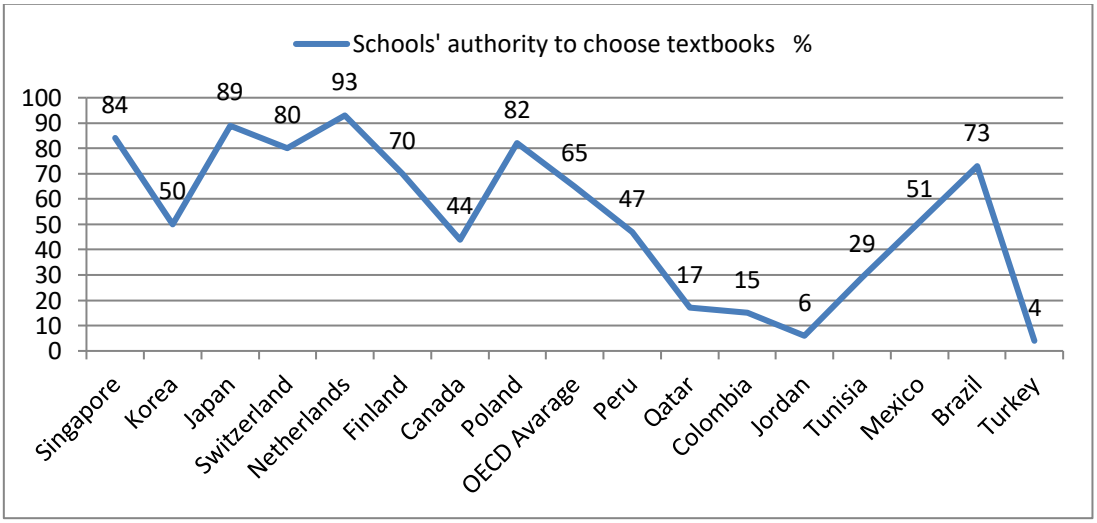

Figure 5: Rate of schools' authority to choose textbooks

Among the countries with high PISA scores, the rate of determining the textbooks in South Korea alone is below the OECD average, whereas in Canada it is below the OECD average, because of the federative management structure, the authority to determine the textbooks is mainly transferred to state educational institutions as well as schools. In other countries with high PISA success, the authority of schools to determine textbooks is predominantly in schools, not in the central government. Among the countries with low success, Brazil was above the OECD average in terms of the authority of schools to determine textbooks, while other countries remained below the average (OECD, 2012; OECD, 2013).

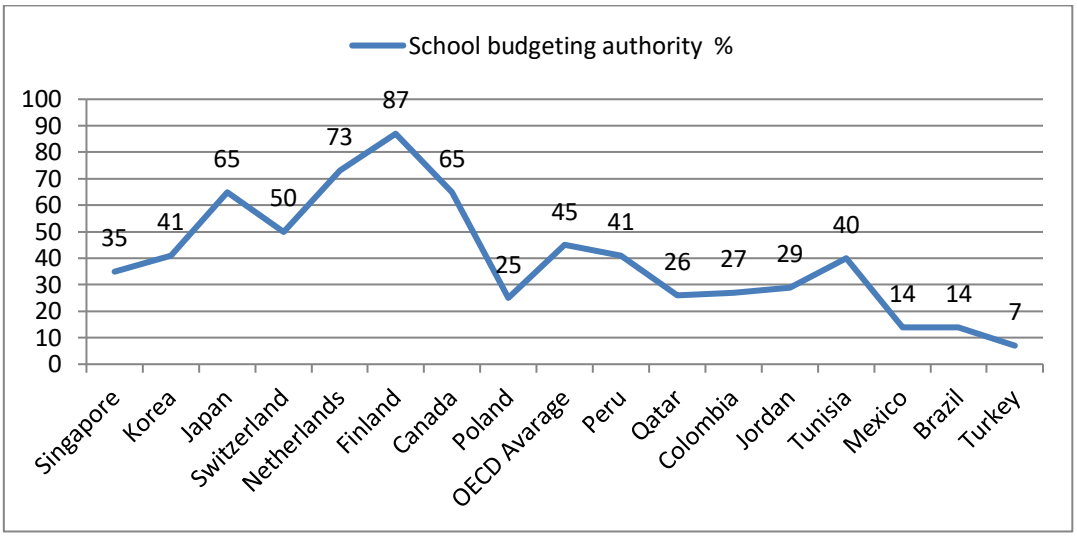

Figure 6: Rate of school budgeting authority

Only Poland, among the countries with high PISA success, have the authority to decide on the annual budgets of schools below the OECD average. Among the low-achieving countries, the authority to decide on the annual budgets of schools (Turkey, Peru, Qatar, Colombia, Jordan, Tunisia, Mexico, Brazil,) are below the OECD average (OECD, 2012; OECD, 2013).

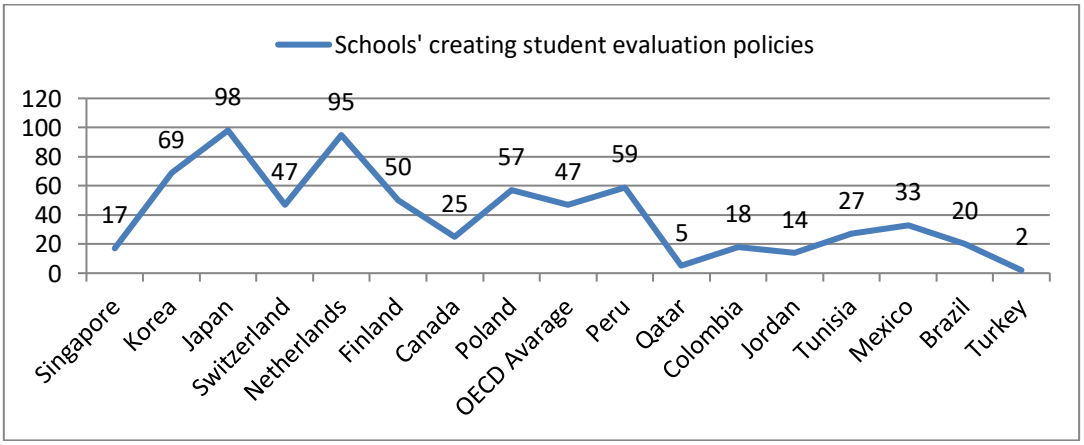

Figure 7: Rate of schools' creating student evaluation policies

Of the countries with high PISA success, only in Canada and Singapore, the decision-making authority of schools to establish student assessment policies was below the OECD average. The reason for this is that the central administration has mostly delegated its powers to decision making to the state administration. In countries (Turkey, Qatar, Colombia, Jordan, Tunisia, Brazil, Mexico) with low PISA success, the decision-making authority of schools in evaluating students' achievement was below the OECD average (OECD, 2012; OECD, 2013).

As it is seen, in PISA exams, schools in countries with high scores were given more authority in determining the course materials, determining the teachers in need, evaluating student achievement, and making decisions on budgeting compared to schools in countries with lower scores. It can be said that in successful countries in PISA, local governments finance schools more and schools are more autonomous in terms of decision-making authority (OECD, 2012; OECD, 2013).

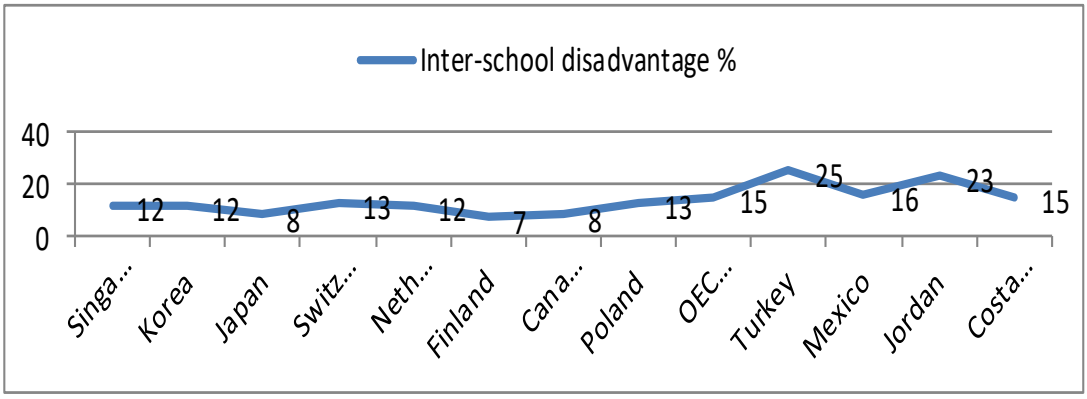

Figure 8: Inter-school disadvantage indicators of countries

In countries with high PISA score, shown in Figure 8, inter-school disadvantage is below the OECD average. Turkey, Mexico and Jordan are the countries with the high level of inter-school disadvantage (OECD, 2012; EUROSTAT, 2019). As this situation negatively affects social justice and equal opportunities in education, it can negatively prevent social mobility that middle and lower social classes will try to achieve through education. Lack of equal opportunities between individuals may bring risks that threaten social trust and social cohesion. The high socio-economic difference between schools means inequality of opportunity and risk for students in disadvantaged schools.

4. Discussion and Conclusion

Localization in education is seen as different forms of implementation, such as delegation of decision-making authority to state education coordinator, provincial directorates of national education or school administrations, more local governments to finance schools or school-based management. Equal opportunities in education and quality of school can not be ensured only by the Ministry of Education holding the powers and increasing the share of the central budget. Equality of opportunity can be achieved more easily by

participating in all elements of the education system, empowering the school and financing disadvantaged schools.

Countries where schools are more autonomous in terms of decision making authority in education and financially supported by local governments are more successful in the international PISA exam than those in the ministry that have education finance, planning and decision making authority (OECD, 2012, 2013 ; EUROSTAT, 2019). Considering at the similar research results in the literature. According to Yorulmaz and others (2017) the academic success of students is higher in countries where finance is mostly allocated to schools. In Finland where schools are more authoritative, academic success is above the OECD average (Çobanoğlu and Kasapoğlu, 2010). Success in PISA is higher in countries where there is little inter-schools' disadvantage (Aydın and others, 2012). Students in low-disadvantaged schools have better academic success than high-disadvantaged schools (Novotny, 2011).

In this study is to compare the appearance of localization in education of countries with high and low PISA scores, which are accepted as international success criteria in education and all OECD member countries participate. For this reason, in the 2012, 2015 and 2018 PISA exams, the schools in the top-level countries and in the low-level countries have been compared in terms of determining the teachers in need, determining the textbooks, determining the annual budget, decision-making in evaluating student achievement and the ratio of local administrations to finance schools. Schools in countries with high-level success in PISA are more empowered to identify textbooks than in schools with low-level success, assess student success, identify teachers in need, and decide on the annual budget (OECD, 2013). Local governments finance schools more than the central budget, whereas the success in PISA is higher in upper-level countries (OECD, 2017).

Inter-school disadvantage in all countries with high PISA scores is below the OECD average 15%. It can be said that the disadvantage among schools in these countries is less. PISA scores in countries with a low level and determine the textbooks of schools, student achievement assessment, determination of teachers and in need of decision-making authority in determining the annual budget is lower than the high country and the OECD average. Turkey, Mexico and socio-economic differences between schools in Jordan's located above the OECD average, which has the disadvantage that between schools were found to be more.

Academic success is not only limited to academic support, but can also be enhanced by controlling school autonomy and social and cultural differences. Failure to achieve social justice and equal opportunities in education may increase the disadvantage among schools. Schools' decision-making power should be increased in planning education and training and determining the school budget. Schools should be financed by local administrations as well as the central budget. The priority of local governments and public institutions should be to support disadvantaged schools. Thus, quality and opportunity equality can be achieved more easily in education.

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