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Araştırma Makalesi/Research Article

A COMPARATIVE STUDY ON EDUCATION STATISTICS OF TURKEY AND SINGAPORE

TÜRKİYE VE SİNGAPUR EĞİTİM İSTATİSTİKLERİ ÜZERİNE KARŞILAŞTIRMALI BİR ÇALIŞMA

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ABSTRACT: The concept of education can be simply defined as the process of bringing about behavioral changes for individuals. Far beyond the mentioned individual development, it is among the most important factors that contribute to social development and progress. For this reason, the importance of education for countries enhances day by day; as a result of this, many countries try to increase the national resources allocated for education. Although it is defined as a semi-public service, almost all of these resources are still covered by public budgets in almost every part of the world. This necessitates the expenditures and investments in education to be carried out based on correct planning. The importance of being able to invest strategically becomes more prominent for the countries. In particular, the importance of access to strategic execution of this investment for countries like Turkey, with an increasing number of individuals benefiting from education due to the potential of the young population, stands out even more. For this planning to be carried out systematically and correctly by countries, accurate, complete and reliable training data is needed. By analyzing these data, it is ensured that desired national targets and the education reaches become operational. Nowadays these data in Turkey and many countries by the ministries responsible for education have become an annual publication. In this study, the mentioned data of Turkey have been tried to be examined and interpreted in terms of different indicators. The data obtained in the study, which was conducted according to the scanning model, was examined according to the document analysis technique. Primary and secondary education levels within the scope of compulsory education have been discussed and besides the budget and education investments allocated to education, indicators related to education potential (number of schooling, student numbers per class, number of teachers according to education levels, etc.) have been examined. To make an international comparison, the data of Singapore, which has shown high-level success in exams such as TIMMS, PISA, PIRLS (including 2018 PISA) has been also examined and interpreted. In the study, it has been concluded that Turkey has some education indicators that are open for improvement and its education expenditures are not yet at the desired level. Also, it has

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found out that the recent educational expenditures made in Singapore have a significant contribution to the quality of education and success.

Key Words: Education, Education Statics, Education Expenditure

ÖZ: Eğitim kavramı, en yalın hali ile bireylerde davranış değişikliği meydana getirme süreci olarak tanımlanmaktadır. Günümüzde ise, eğitim bahsedilen bireysel değişimin çok ötesinde, sosyal gelişime ve ilerlemeye katkıda bulunan en önemli faktörler arasında yer almakta; dolayısıyla eğitimin ülkeler için önemi günden güne artmaktadır. Bu durumunun beklendik bir sonucu olarak, birçok ülke eğitime ayrılan ulusal kaynaklarını artırmaya çalışmaktadır. Eğitim hizmetleri yarı kamusal hizmetler olarak tanımlansa da, bu hizmetler için kullanılan kaynakların neredeyse tamamı halen dünyanın hemen her yerinde kamu bütçeleri tarafından karşılanmaktadır. Bu durum, yapılan eğitim harcamalarının ve yatırımlarının doğru planlamaya dayanarak gerçekleştirilmesini gerektirmektedir. Ülkeler tarafından yapılan harcamaların ve yatırımların bir strateji çerçevesinde gerçekleştirilebilmesi giderek önem kazanmaktadır. Özellikle, genç nüfus potansiyeli nedeniyle eğitimden yararlanan birey sayısının her geçen gün arttığı Türkiye gibi ülkeler için bu yatırımın sistematik olarak yürütülebilmesinin önemi daha da belirginleşmektedir. Ülkelerin ifade edilmiş olan planlamaları doğru bir şekilde gerçekleştirilebilmesi için eksiksiz ve güvenilir eğitim verilerine ihtiyaç duyulmaktadır. Bu verilerin analiz edilmesi, ülkelerce belirlenen ulusal hedefler ve eğitim çıktılarına ulaşılabilmesi adına önem taşımakta; eğitim süreçlerine işlevsellik kazandırmaktadır. İhtiyaç duyulan bu veriler artık Türkiye'de ve pek çok ülkede eğitimden sorumlu bakanlıklar tarafından yıllık olarak yayınlanmaktadır. Bu çalışmada Türkiye'ye ait söz konusu veriler farklı göstergeler açısından incelenmeye ve yorumlanmaya çalışılmıştır. Tarama modeline göre yürütülen çalışmada elde edilen veriler doküman analizi tekniği incelenmiştir. Çalışmada zorunlu eğitim kapsamındaki ilköğretim ve ortaöğretim düzeyleri ele alınmış olup eğitime tahsis edilen bütçe ve eğitim yatırımlarının yanı sıra eğitim potansiyeli ile ilgili göstergeler (okul sayısı, sınıf başına öğrenci sayısı, eğitim seviyelerine göre öğretmen sayısı vb.) ele alınmıştır. Uluslararası bir karşılaştırma yapılabilmesi için, TIMMS, PISA, PIRLS (2018 PISA dahil) gibi sınavlarda yüksek başarı gösteren Singapur'a ait veriler de incelenmiş ve yorumlanmıştır. Araştırmada, Türkiye'nin geliştirilmeye açık bazı eğitim göstergelerine sahip olduğu ve eğitim harcamalarının henüz istenen düzeyde olmadığı sonucuna varılmıştır. Ayrıca, Singapur'da yapılan son eğitim harcamalarının eğitim ve başarı kalitesine önemli bir katkı sağlamış olduğu bulunmuştur.

Anahtar Kelimeler: Eğitim, Eğitim İstatistikleri, Eğitim Harcamaları

1. INTRODUCTION

Education is one of the main branches of science that focuses on the behavior of individuals and works to change these behaviors in a specific direction. Although the outcomes and benefits of this discipline seem to be directly related to individuals who benefit from education, education is among the determinants of many social benefits besides individual benefits. As an expected result of this situation, the importance of education gradually expands; the impact of education on societies is increasingly felt.

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The modernization efforts of the societies and the desire of the countries to increase their development levels have been the pioneers of the innovation and development movements in many different fields, especially education. Because development is not a phenomenon that can only be provided by monetary power and other economic resources. Achieving the full development of countries is directly related to the most important output of education, the educated manpower. For example, many countries with oil, which is a very valuable natural resource today, do not have enough resources because they do not have trained manpower. On the other hand, Germany and Japan, whose natural resources are very limited, have made great economic progress by making the best use of their scarce resources thanks to their trained manpower (Fidan and Erden, 1991). While the national income per capita in Japan in 1960 was around the world average, in 1990 increased about 50 times (Kasliwal, 1995).

Another example of this relationship is Greece that used to have approximately equal levels in terms of national income per capita with Turkey in the recent past and now has five times more income level than Turkey's income level. Likewise, the national income per capita in Greece was around 40% below the world average in 1960, but achieved the world average in 1990 and even managed to reach slightly above the average. What is striking here is that in the same period, investments in education in Japan and Greece were close to these rates. This result is accepted as the miracle of education (Sami, 2003). As can be seen, education is an area with a high impact value that can provide critical benefits for countries and societies both horizontally and vertically. This has led to an extremely rapid increase in the budget allocated by countries for education. In other words, education expenditures have been accepted as compulsory by countries.

It would be more appropriate to prefer investment instead of expenditure when naming budgets allocated for education because even in the short term, the returns provided by education for countries and individuals are well above the relevant expenditures that can be considered as costs. The different calculations made for the return of education expenditures support this situation. The calculation used in a study conducted at the University of Colorado is one of them. Education expenditures in Turkey can be made more prominent by handling by this calculation. The budget allocated to education in Turkey was about $ 6.8 billion in 2000 and it constituted approximately 5% of national income. The average cost of increasing the educational level of each person for one year in per capita income in Turkey is 75 dollars and this investment will go back with an increase of 260 dollars in return. As can be understood from the example of Turkey, thanks to the

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country's expenditure on education, they won nearly four times. Another example is the relationship between the increase in education expenditures of the Far East countries for the development of human resources and their economic development. According to the results of a detailed study covering 88 countries, an increase in literacy rate from 20 percent to 30 percent leads to an increase of 8 percent to 16 percent in the gross domestic product (Çakmak, 2008). As is seen in the examples, the return on education expenditures of the countries is quite high and this return supports not only economic but also social, cultural and social development. For this reason, it would be correct to say that the slope and the educational expenditures made together play a key role in the level of development and development that the countries want to achieve in every field.

Planning of education expenditure is now a necessity for every country, but especially for developing countries and countries where demand for education has increased rapidly, such as Turkey, this necessity causes some serious problems. The main problems encountered are the increase in education costs, the inefficiency of the teaching staff, student failures, the increase of scholarships, the inadequacy of resource use, the increase in external debts, the increase in expenditures for non-educational areas, the inability to increase public revenues and high unemployment (Koç, 2007). One of the biggest obstacles in overcoming these problems is undoubted that a large part of the education expenditures is still being tried to be solved by public resources.

Although the economic resources of the countries as the determinant of education expenditures come to mind first, the policies followed by the political powers and the public's desire for education and the interest shown in education are other factors that are highly influential on education expenditures. In other words, the importance given to education by both the people who service and benefit from education services leads to the planning of these expenditures. According to Başaran (2006), the importance given to education has three indicators. These are the increase in education expenditure per student, the increase in the education budget and the ratio of education expenditures to national income. For this reason, to reach more objective results related to education expenditures of countries, it is necessary to consider the relations of different data with each other besides certain numerical indicators.

The concept of globalization, which has an impact on every aspect of life today, has also affected education and education expenditures. With globalization, education has ceased to be a national concept and in many parts of the world, it has become an international concept that has been taken up with a very similar perspective and universal goals have been taken into consideration in education.

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This has caused the educational policies adopted by the countries and the educational practices they carry out within these policies to approach and interact with each other. Therefore, countries should plan and provide educational services that can address the understanding of education adopted worldwide and take into account and reflect global criteria; they are also expected to regulate local opportunities in a way that can serve global goals by taking education expenditures with the same perspective. Therefore, considering the educational expenditures of the countries with different socio-economic conditions, taking into account the practices carried out in these countries is considered important for making some inferences.

With this perspective, in the study, the educational expenditure of Turkey made in 2018 was investigated comparatively in terms of different variables. Another country considered in this review in Singapore. Singapore was a country that had declared independence from England in 1959, a very recent history. Since its split from Malaysia in 1965, it had no economic resources other than its port to help develop and had no defense system. It also used to experience tension with neighboring countries and imported most of its basic needs such as food, water, and energy. Besides, the Republic of Singapore did not appear to be a candidate for educational and economic power worldwide (OECD,2012). Moreover, Singapore is still trying to deal with problems such as the overcrowding of the classes and the overcrowding of the existing schools in the education system due to the high population density (Levent and Yazıcı, 2014). Despite all these negative effects, Singapore has achieved remarkable success in international exams such as TIMMS, PIRLS, and PISA thanks to its rational education practices. Also, the Singapore education system has been evaluated by some international evaluation organizations and has been stated to be superior in many respects to its competitors. For example, in the 2010 World's Best Performing Education Systems" survey conducted by Mc Kinsey, Singapore outperformed many countries covered by this research. In the research report issued by the same organization, it was stated that although the Singapore education system had a mediocre performance in 1985, it became an excellent system after 2000 with the effects of the reforms started at that time (Bakioğlu and Göçmen, 2013).

It is doubtless that many different variables determine the rapid development and change in Singapore's education system, but the realization of these policies that direct education is undoubtedly directly and closely related to investment in education. Therefore, in this study, it is aimed to examine the educational expenditures of Singapore and the similarities and differences of it between the education expenditures in Turkey. To make a holistic assessment of the quality of

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education, the indicators related to educational environments were also examined. It is predicted that the findings obtained in this study are considered important to make an evaluation of the education expenditures in Turkey with an international approach, inferences about Singapore's educational practices and make a comparison of the educational environments of two countries. Also, it is thought that the findings of the study will provide to determine the relationship between educational expenditures and educational system success.

2. METHODOLOGY

2.1 Research Model

This study, in which education statistics of Turkey and Singapore are analyzed comparatively, is a sample of qualitative research. As it is known, qualitative researches are defined as a type of research the studies that qualitative data collection methods such as observation, interview, and document analysis are used in; a process for realistic and holistic representation of perceptions and events in the natural environment is followed (Yıldırım and Şimşek, 2005). In qualitative researches it is aimed at understanding how people understand, experience, interpret and produce the social world is a concept that includes attitudes and strategies (Sandelowski, 2004).

The study was conducted according to the scanning model. Scanning model is a research approach that aims to define a situation that does not describe a situation that existed in the past or present. Whatever the subject of research is, there is no attempt to change and influence them. What is wanted to be known as in the square and the aim is to be able to observe and determine that thing correctly. The main goal is to observe without attempting to change (Karasar, 2014). In the scanning model, there is the observation of science, detecting the relationships between events and generalizing the invariant relations controlled. In other words, the description function of science is in the foreground. In the scanning model, recording and classifying events as they are is the foremost feature. However, it is mandatory to make comments and evaluations (Yıldırım and Şimşek, 2005). In this study education statistics of Turkey and Singapore are examined and the findings were interpreted by the researchers; these data were evaluated in detail within the framework of the indicators determined by the researchers.

2.2 Data Sources

The education statistics for 2018 of Turkey and Singapore constitutes the data sources of this study. The data were accessed through the official web sites of the ministries responsible for the preparation and publication of educational statistics. In this study, the data presented at the level of compulsory education within the scope of formal education of both countries were examined. With the

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enactment of the Official Statistics Program in Turkey, as the data published by TSI (Turkey's Statistics Institute) as other institutions and is produced by the organization and the data envisaged to be published, it began to be regarded as taking part in official statistics. Thus, reliable data can be produced in every field needed. In the Official Statistics Program of 2017-2021, the Ministry of National Education was given the responsibility of publishing Formal Education Statistics annually in print and on the internet. In examining the data for Turkey prepared by the ministry said National Education has benefited from the publication Statists. For some indicators, the data of TSI has also benefited from it. Similarly, the data of Singapore were obtained from the report The Education Statistics Digest (ESD) that is regularly prepared and published by the Ministry of National Education annually. In this study, since pre-school education is not included in compulsory education for both countries and international exams (PISA, PIRLS, TIMMS), which aim to predict the success of the countries, focus on the skills between primary and upper secondary education the data of this interval are examined.

2.3 Data Analysis

As it is known, qualitative research is a research model that uses qualitative information gathering and analysis methods such as observation, interview, and document analysis, and follows a qualitative process to present perceptions and events realistically and holistically in the natural environment (Yıldırım, 1999). In this study, educational statistics of countries were examined by using the document analysis method which is widely used in qualitative research. Document analysis is defined as a systematic review of existing records or documents as data sources. The basic condition of successful document analysis is that the necessary arrangements can be made for finding, examining the documents related to the subject and reaching a synthesis that will reveal certain situations or opinions (Karasar, 2014). During the document analysis process, the researcher collects general (newspaper, meeting minutes, official reports, etc.) or special (personal diary, letter, e-mail) qualitative documents (Creswell, 2009). In this study, reports which are in the form of general documents are examined systematically within the framework of research problems and the results are presented and interpreted by the researchers.

3. FINDINGS

In the study, primarily some key indicators related to Turkey and Singapore education systems are focused on. First of all the number of schools and classes were examined according to educational levels. The relevant data are presented in table 1.

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Table 1. Number of schools and classes in Turkey and Singapore by the level of education

Level of education	**School**		**Class**	
	Turkey	**Singapore**	**Turkey**	**Singapore**
Total of formal education*	55636	356	659048	13240
Formal education (Public)	48179	263	551450	
Formal education (Private)	7457	93	107598	
Primary school	24 739	186	256 989	7089
Primary school (public)	22 931	145	227 694	
Primary school (private)	1 808	41	29 295	
Lower secondary school	18 935	139	187 572	4892
Lower secondary school (public)	16 874	104	160 603	
Lower secondary school (private)	2 060	35	26 969	
Upper secondary school	12 503	31	214 487	1259
Upper secondary education (public)	8 914	14	163 153	
Upper secondary education (private)	3 589	17	51 334	

* Preschool education data are not included in the presentation of relevant data within the scope of formal education.

When Table 1 is examined, it is observed that there is a significant difference between Turkey and data on different levels of education in Singapore. Such that the total number of schools in Turkey is approximately 156 times more than the number of schools in Singapore. As an expected consequence of this situation, there is a considerable difference between the number of classrooms in these countries. The point here is that the difference between the number of classrooms in the two countries is not at the same ratio as the difference between the number of schools. According to the data in the table, the number of classes in Singapore is approximately 49 times more than the number of classes in Turkey. Hereunder, despite the low number based on the total number of schools and classes in the Singapore education system, it is seen that the number of classes per school (ratio) is approximately 4 times more than Turkey. It can be said that this is an important advantage for the Singapore education system considering the basic environmental factors that are needed for the establishment of effective and efficient educational environments in schools and achieving the educational goals at all levels.

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In the study, the number of students and teachers were also dwelled on. The data related to these findings are given in Table 2.

Table 2. Number of Students and Teachers in Turkey and Singapore by the level of education

Level of education	**Number of Students**		**Number of Teachers**	
	Turkey	Singapore	Turkey	Singapore
Total of formal education*	16.544.047	428773	1.077.307 (Permanent: 994 634/ Contractual: 82 673)	32,680
Primary Education	5 267 378	234414	300 732	15787
Lower secondary education	5 627 075	146703	354 198	12576
Upper secondary school	5 649 594	54664	371 234	4740

* Preschool education data are not included in the presentation of relevant data within the scope of formal education

As can be seen in Table 2, there is a large numerical difference between the number of students in Turkey and Singapore from primary education to upper secondary school. When it is considered that Turkey is a country that has a population of nearly 81 million while Singapore is a country of around 6 million people, this situation is considered to be expected. When the number of teachers in the countries is examined, a similar situation is observed.

Here's to the point that needs to be underlined is that when the number of students and teachers in each level of education in Turkey is quite close, the numbers in Singapore, especially at the upper secondary school level, decreases by more than one third. Undoubtedly, the difference between compulsory education periods of countries is the main reason for this situation. Accordingly, the duration of compulsory education, which is 12 years in Turkey and implemented 6 years in Singapore at the primary level, might be the reason for the students leaving the formal education process in Singapore. Another noteworthy difference is that the number of permanent and contractual teachers (given in the total of formal education) is also indicated with the number of teachers in Turkey.

In the study, the number of students per class and teacher is also examined and the relevant data are presented in Table 3.

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Table 3. Number of students per class and teacher by the level of education

Level of education	Number of Students Per Class		Number of Students Per Teacher	
	Turkey	Singapore	Turkey	Singapore
Total		32.4		
Primary Education				
2013	22		19	16.5
2018	22	33.1	18	14.8
Lower secondary education				
2013	27		18	13.2
2018	24	33.8	15	11.6
Upper secondary school				
2013				
2018		23		

Since there is no standard and common statistical presentation on the number of students per class and teacher for countries, some deficiencies are included in Table 3. Available data shows that the level of the number of students per classroom at primary education in Turkey has remained stable in the last 5 years when there has been a slight decrease in lower secondary education level. As for Singapore, the number of students per classroom is relatively high, which is over 30 for all levels of education. Given the number of classrooms per school in the previous tables and the total number of students in the education system, these data appear to be inaccurate, but the disclosure made by the Singapore ministry of education clarifies the situation. Accordingly, the data presented for the Singapore education system is explained as follows: *"Class size is the average number of students per class, calculated by dividing the number of students enrolled by the number of classes at that level. The classes here refer to form classes only. The actual class size can be smaller for some subjects and lessons, depending on the learning needs of the students or program considerations. For instance, leveling up programs such as the Learning Support Programme for lower primary students, School-based Dyslexia Remediation program and coursework subjects like Design and Technology at the secondary level are conducted in smaller classes." (Singapore Ministry of Education, 2019).* According to these explanations, it is understood that various classrooms and learning environments are used for students' different learning needs, in other words, multiple learning environments are used instead of standard and uniform classrooms by arranging the classrooms in the schools according to the content of the curriculum and the needs of the students. The number of students per teacher in these countries supports this situation. Although there has been a decrease in the number of students per teacher

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in Turkey in the last 5 years, the number of students per teacher is still above the OECD average (15-elementary, secondary-13) while Singapore is among the countries that have succeeded to fall below this average. It is thought that this situation is an important factor that improves the quality of education in the Singapore education system by providing effective and adequate teacher-student communication.

Besides these indicators of countries, the expenditures on education and the changes of these expenditures in the last five years are also considered. The distribution of these expenditures according to education levels and the amounts per student from these expenditures are presented in Table 4.

Table 4. Public education expenditures and education expenditures per student by level of education

Level of education	**Education Expenditure (USD $)**		**Education expenditure per student (USD $)**	
	Turkey	Singapore	Turkey	Singapore
Total *				
2013	41.696.842	7.797.095	2751	24802
2018	27.393.333	9.241.117	2220	33073
Primary Education				
2013	8.168.421	1.597.879	1914	6250
2018	4.638.125	2.114.674	1582	8787
Lower secondary education				
2013	7.601.578	1.844.953	1844	8359
2018	4.942.083	2.099.899	1600	11345
Upper secondary school				
2013	9.358.947	284.425	2679	10193
2018	6.795.625	301.232	2395	12941

* The sum of public education expenditures (educational budgets) made by countries.

According to the data presented in Table 4 examined it is concluded that there is a significant difference between the public spending on education of Turkey and Singapore in favor of Turkey. It will be true to qualify this situation as usual or expected when the number of students in countries is regarded. Considering the change in the five years of the mentioned expenditure, education spending in Turkey is significantly decreased, while in Singapore it is noteworthy that the budget allocated to education is increased. Expenditures per student, which is another data in the table, supports this situation. The budget allocated for per

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student decreases with a decline in the education expenditure in Turkey; it is observed that this situation causes an increase in the difference between expenditures per student in Singapore. The difference is almost six times higher at the upper secondary school level. In the light of this data, it can be said that both the budget allocated to education and the expenditure per student is insufficient and low in Turkey and this quantitative difference is at a level that can cause some qualitative differences within the education system and the effect can be felt clearly.

4. CONCLUSION, DISCUSSION AND SUGGESTIONS

Education, which is mostly defined by the effects on individuals and their behaviors In the literature, has become a much more comprehensive concept that referred to by its effects on societies and countries. Today, education has also become one of the main factors that are both determinants and indicators of the development levels of countries. For this reason, education is seen as the most important tool that can be used in the creation of qualified manpower necessary for the realization of this development. This has led to an increase in the importance given to education as well as the expansion of education expenditures and budgets allocated to education.

The basic starting point of increasing the education expenditures made by countries is undoubtedly the increasing need for qualified manpower. Therefore, every country that is aware of the importance of human resources makes education expenditures in a way to make these resources more efficiently. In other words, it uses educational expenditures as effective investment tools. In this study, it is aimed to examine these educational expenditures and some other indicators which are effective in providing quality in education. National education statistics of Turkey and Singapore education systems were compared in terms of determining variables and it has been tried to make some evaluations for both countries.

To monitor the changes over time in the number of schools, classes, and students in educational policy is useful for countries like Turkey that experienced frequent changes. Because while monitoring the number of actors and components in the education system, it can also be seen how the learning environments keep pace with developments, how the education budget is managed and in which areas investment is made. Also, the environment that the student encounters at school is key to his happiness and success. For all these reasons, a numerical analysis of the components of educational environments is an important part of monitoring educational policies (ERG, 2015). From this point of view, firstly the data on the current learning environments of both countries was emphasized. Accordingly, it has been concluded that the number of schools and classrooms in Turkey is quite

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higher than Singapore however, it is the opposite considering the number of classrooms per school. A similar situation applies to the number of students in countries and it has been determined that Turkey is the country that has the numerical majority depending on the potential of the school-age population.

Several social factors have a direct impact on the shaping of education systems and the planning of education expenditures and the school-age population is at the top of these factors. The demographic characteristics of countries, the number of students they have and the implications of the increase in these numbers on the financing of education services are clear. The size of the student population clearly shows its impact on the size and quality of educational services to be provided (OECD, 2006). Turkey has the potential that is one of the most prominent examples that can be given for this statement. Although the total number of classrooms has been doubled by making 300 thousand classrooms by the Ministry of National Education in the last 15 years (MEB,2017), the intended physical conditions have not been reached yet. This situation indicates that the desired level has not been reached in environmental conditions, which is the first step in the regulation of the factors determining the quality of education. This, of course, causes other academic, psychological, social and economic factors that are expected to be emphasized to improve the quality of education or that these factors are not taken into consideration in education planning. For all these reasons, it is considered that long-term and systematic education policies that take into account the population projection should be followed to overcome the deficiencies that directly affect the well-being and learning situations of the students.

Learning-teaching activities must be planned within the framework of predetermined criteria, that is, education objectives, to achieve the desired level of learning outcomes by conducting training processes at maximum efficiency. One of the most important variables determining the effectiveness of this planning in practice is undoubtedly the teachers who are obliged to guide the learning processes. In addition to teaching skills, organization, communication and management skills are also decisive for teachers to carry out the guidance process effectively, in other words, to organize a qualified learning environment. For effective learning, teachers should be able to use all of these skills efficiently, use as much time as possible, allocate as much time as possible to the classroom, and monitor and evaluate the progress of their students, taking into account the individual needs of the class. In other words, the realization of the learning objectives that are expected to be achieved at the end of the educational processes is also directly related to the time allocated for the students except for the time allocated to learning and interactive learning environments based on student-

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teacher interaction maximize the possibility of achieving these objectives. When the number of students per teacher in Turkey and Singapore is examined in light of all these explanations, it can be seen that Singapore education system is more appropriate to ensure that the learning environment, the number of students that is below both OECD and Turkey average is an important advantage for the functionality of educational activities.

Another striking point about teacher data in education systems is the difference in the presentation of these data. Information about the employment status in Turkey was presented, while in Singapore, some demographic and professional characteristics data that could be decisive on teaching processes such as age and duration of teaching experience were also shared. Yazıcı and Levent (2014), in their studies that examine the factors affecting the success of the Singapore education system, stated that the teachers in the Singapore education system were among the main factors and stated that one of the most important elements of Singapore's starting in the 1990s was teacher quality. The main factors that are thought to be effective in ensuring this quality are rational and merit-based policies followed in the process of teacher training and in-service development processes of teachers. Therefore, the adoption of teacher training and the accompanying teachers that some data in the monitoring and evaluation work in the profession by Turkey, a similar approach, as well as the employment form, such as disintegrating properties instead of teachers' professional and personal development goal of improving the quality of focusing the training on indicators for the improvement of professional reputation, is thought to provide important contributions.

When the amount of public expenditure on education made by countries and the changes in these expenditures examined, it has been concluded that in Singapore, this amount has increased; the amount of expenditure per student, which has been increased in the same way, is significantly above the average level of Turkey. As is known, Turkey and Singapore are the countries with different socio-economic characteristics. While national income per capita in Singapore is about 53 thousand dollars it is around 9 thousand dollars in Turkey (The World Bank, 2016). Considering the economic competencies of countries with the school-age population they have, the insufficiency of the amount of expenditure per student on education in Turkey is considered understandable.

However, apart from the limited natural resources of Singapore, as a country that gained its independence approximately 5o years ago, it has seen its human resources as the main source that directs all resources. Thanks to the policies it has developed in line with this understanding, it has succeeded to be among the

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developed countries by closing both the success in education and the shortage of qualified people. So much so that, in the "2010 World's Best Performing Education Systems" survey conducted by McKinsey's research organization, Singapore surpassed many of the countries covered by this research. In the research report issued by the same organization, it was stated that although the Singapore education system had a mediocre performance in 1985, it became an excellent system after 2000 with the effects of the reforms started at that time (Bakioğlu and Göçmen, 2013).

As can be seen, the education expenditures made with the rational methods followed in the Singapore education system created a reform effect in education in a short time and enabled the country to achieve the highest level of success achieved in the field of education. The 2018 PISA results of Turkey and Singapore support to this notion. Turkey has remained below the OECD average in all areas (reading, mathematics and science) while Singapore has been the 2nd (PISA, 2018). Accordingly, it can be concluded that education expenditures have become an important tool used in increasing academic success in the countries. The study of Aydin et al (2018) in which they examined the results of Turkey and the most successful countries at the PISA 2015 comparatively in the context of education investments support this conclusion. As a result of the investigations in their study, it was concluded that there was a positive relationship between the gross domestic product and the total amount of education expenditures of the 6-15 age group in PISA success. In his study that analyzed the education expenditures of Turkey and some OECD countries, similarly, Ceğer (2018) concluded that when PISA results were considered, the countries that allocated more shares to education generally had high scores, but other factors like the number of students, national income and so on should also be evaluated in predicting academic success

Considering these results with a holistic approach, it is thought that there are regulations that are expected to made by Turkey. With regulations and education investments, it is predicted that it can reach similar results in the long term with revised educational practices and the education investments which are thought to be necessarily increased. It is thought that this situation will provide important benefits to reflect the globalization, changing demographic characteristics and technological developments to education processes which are among the driving forces of the future and necessitate some changes in education and to provide equal opportunity in education which is the primary aim of education expenditures.

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