

Effectiveness of Education Expenditures in the Context of the Pisa Survey: A Review with Examples from Selected Countries

Murat ALP (<http://orcid.org/0000-0002-9252-7090>), Nigde Omer Halisdemir University, Turkey; e-mail: muratalp@ohu.edu.tr

Altug Murat KOKTAS (<http://orcid.org/0000-0002-0911-2143>), Nigde Omer Halisdemir University, Turkey; e-mail: altugmuratkoktas@ohu.edu.tr

Ali Gokhan GOLCEK (<http://orcid.org/0000-0002-7948-7688>), Nigde Omer Halisdemir University, Turkey; e-mail: aligokhangolcek@ohu.edu.tr

Keywords : PISA, Education, Education Expenditures, Turkey.

JEL Classification Codes : H52, I21, I22.

Extended Abstract

Programme for International Student Assessment (PISA) PISA is a comprehensive educational research conducted by the OECD for the first time in 2000 and held every three years. To what degree students aged 15 years, who have completed the compulsory education phase, are ready to social and community life and their knowledge and skills are measured within the framework of several tests and surveys. The program differs from other educational researches at the point of measurement of the effects of learning to life rather than what young people learned in education. In addition, PISA focuses on determining the status of the country of the quality and policy of the education rather than individual measurements. Turkey was included for the first time in 2003 this program, which was first implemented in 2000 in 32 different countries -including 28 OECD members- and reaching 265,000 students. Lastly, the PISA survey that was conducted in 2015 has found application in 72 countries by reaching approximately 540,000 students. In general, there are questions in the questionnaires about fields of science which are based on reading, mathematics and business integration and focused on problem-solving. Tests and questionnaires in the field are implemented on a computer-based and each student is given two hours in total. Applied tests are asked in two different types, multiple choice and open ended.

In this application, which is held three years, brings a different area to the foreground every year, and this field covers a majority of 2/3 of the questions of that year. For example, reading skills in the year 2000 when was first applied, mathematics in 2003, science in 2006, reading skills in 2009, mathematics in 2012 and science in the latest PISA in 2015 has been the weight of questions. This case provides a considerable advantage, over the years, for the course of development in the fields. Besides the annual change of sample types paves the way for a general analysis. In 2015, it is understood from the OECD's PISA data that it is gotten information about roughly 29 million students by means of the test made by 540.000 students, aged 15, in 72 different countries. In the PISA questionnaires, where is made in 2015 and science has come to the forefront, Singapore ranks first in the field of science, leaving behind the performance of other participating countries. Also, Japan, Estonia, Finland and Canada constitute the first five rankings in the performance rankings as the next four countries. In the ranking, Singapore, which managed to be in the first place in all of science, reading skills and mathematics fields, the first country example which will be examined in the study. Furthermore,

according to PISA data in 2015, Turkey ranks 52nd in science and 50th in areas of mathematics and reading skills among 70 countries. Another country to be investigated in the study is Mexico. The reason for the use of the country is that it is in the same order as Turkey in the PISA ranking, but also remaining close to the data of the two countries in many economic data attractive the countries elected. Moreover, Finland, renowned for its quality of education system, constitutes the fourth and final country to be examined in the study.

The effectiveness of training spending, which is the focal point of the study, has been examined in the context of the 2015 PISA results, considering the OECD, World Bank and selected country data. In this context, it has been tried to show whether or not there is a harmonization with the PISA results using data such as the amount of education expenditures made by the countries, the amounts allocated to education in the budget, the education expenditures per capita and national income (GDP) ratio of education expenditures.

References

- Agasisti, T. & S. Longobardi & A. Regoli (2014), "Does Public Spending Improve Educational Resilience? A Longitudinal Analysis of OECD-PISA Data", *SIEP (Societa Italiana di Economia Pubblica), Working Paper 669*, <http://www.siepweb.it/siep/images/joomd/1406809666Agasisti_et_al_WP_SIEP_669.pdf>, 23.08.2017.
- Ayrangol, Z. & M. Tekdere (2014), "Türkiye ve OECD Ülkelerinde Yapılan Eğitim Harcamalarının Karşılaştırmalı Analizi", *EUL Journal of Social Sciences*, 1-30.
- Egeli, H. & B. Hayrulloğlu (2014), "Türkiye ve OECD Ülkelerinde Eğitim Harcamalarının Analizi", *Finans Politik & Ekonomik Yorumlar*, 51, 93-108.
- French, J. & A. French & W. Li (2015), "The relationship among cultural dimensions, education expenditure, and PISA performance", *International Journal of Educational Development*, 42, 25-34.
- M.E.B. (2016), *PISA 2015 Ulusal Raporu*, (Pre: U. Taş & Ö. Arıcı & H. Ozarkan & B. Özgürlük), T.C. Milli Eğitim Bakanlığı Ölçme, Değerlendirme ve Sınav Hizmetleri Genel Müdürlüğü, <http://pisa.meb.gov.tr/wp-content/uploads/2016/12/PISA2015_Ulusal_Rapor1.pdf>, 23.08.2017.
- O.E.C.D. (2013), *Education at a Glance: Finland*, OECD Publishing, <https://www.oecd.org/edu/Finland_EAG2013%20Country%20Note.pdf>, 28.08.2017.
- O.E.C.D. (2014), *Education at a Glance: Mexico*, OECD Publishing, <<https://www.oecd.org/edu/Mexico-EAG2014-Country-Note.pdf>>, 28.08.2017.
- O.E.C.D. (2015), *Programme for International Student Assessment (PISA) Results from PISA 2015: Mexico*, OECD Publishing, <<http://www.oecd.org/pisa/pisa-2015-Mexico.pdf>>, 28.08.2017.
- O.E.C.D. (2016a), *PISA 2015 Results in Focus*, OECD Publishing.
- O.E.C.D. (2016b), *The PISA 2015 Assessment of Reading, Mathematical and Scientific Literacy*, OECD Publishing.
- O.E.C.D. (2016c), *Education at a Glance 2016: OECD Indicators*, OECD Publishing.
- Singapore Budget (2016), *Analysis of Revenue and Expenditure: Financial Year 2016*, <http://www.singaporebudget.gov.sg/data/budget_2016/download/FY2016_Analysis_of_Revenue_and_Expenditure.pdf>, 28.08.2017.
- T.U.I.K. (2015), *Eğitim Harcamaları İstatistikleri*, <<http://www.tuik.gov.tr/PreHaberBultenleri.do?id=21548>>, 23.08.2017.
- Word Bank (2017), *Government Expenditure on Education Data*.