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An Evaluation of the PISA 2009 Results

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“Turkey is amongst the countries who achieved the largest score improvements; however we could not make it to the upper level. In the assessment where 1 denotes the worst and 6 denotes the best performance, Turkey’s level is 2 in all three categories - science, mathematics and reading – both in 2003 and 2009. Although the recent steps in the right direction taken in the field of education proved fruitful, need for a comprehensive reform in education still prevails.”

Results of the third Programme for International Student Assessment (PISA) were announced by OECD on December 7, 2010 making it possible to evaluate the recent performance of Turkey’s education system in comparison with other countries. It was identified in several publications by TEPAV since its inauguration that a leap in the field of education is a prerequisite for Turkey’s becoming a high-income country. Policy note by Ozan Acar in February 2008 in particular have reestablished the link between education performance and competitiveness making a significant contribution to economic policy agenda of Turkey¹. This brief evaluation note also makes a general assessment of the performance of education system in Turkey in the light of the recently announced PISA 2009 results. More integrated analysis will be communicated with the public in the coming days.

OECD’s PISA program has been commonly used in the international platform to compare education performances of countries. PISA tests measures and compares the skill level of 15 year old students in different countries in three categories namely science, mathematics and reading. The tests aim to measure not only the academic knowledge but also the capacity to use such knowledge in real life and their ability to solve problems in particular. In addition to this, the tests make it possible to analyze the causes of success or failure through surveys conducted with students, parents and school administration. PISA test was initially conducted in 40 countries, 30 of which are OECD members. In 2006 17 new countries were added to the program and the test was conducted in a total of 57 countries. As of 2009, 65 countries are involved in test program. Turkey participated in PISA tests in the said three years with 4855, 4942 and 4996 students, respectively.

2009 results of the program implemented once in three years were published in December 7, 2010. Comparison of the quality of education in Turkey with other participant countries in the light of the data reveals the following:

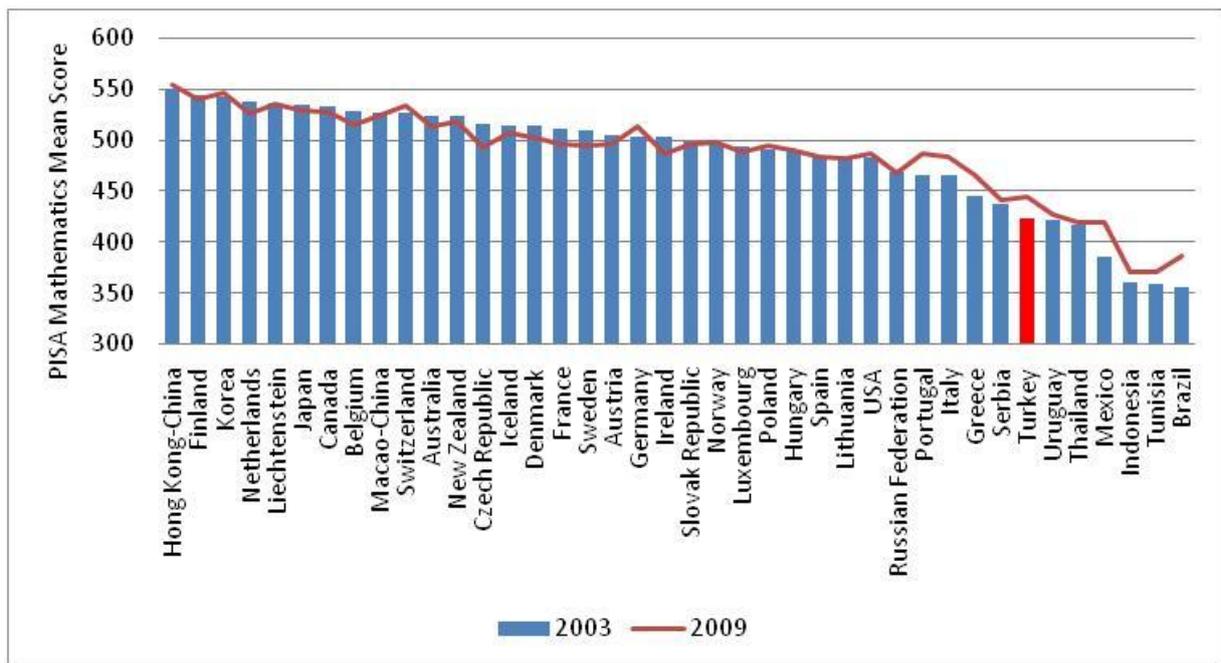
- Among the 40 countries which were included in the programme in 2003, Turkey’s rank in science and mathematics rose from 35th to 22rd place. In 2009 Turkey outscored Uruguay and Serbia with which it had similar mean scores in the test in 2003. Considering mean score in reading, Turkey outperformed Russia and advanced from 33rd to 32nd place.
- Among 65 countries evaluated in 2009’s test, Turkey ranks the 43rd in science and mathematics and the 41st in reading proficiency.
- PISA 2009 results indicate that Turkey made an advance in both overall ranking and in mean reading, science and mathematics scores compared to 2003. Turkey’s score in mathematics

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rose from 423 in 2003 to 445 in 2009. Similarly science mean score increased from 434 to 454 and reading mean score from 441 to 464 between 2003 and 2009. **Despite the improvement in mean scores and ranking, Turkey could not make it to an upper level in reading proficiency, mathematics and science compared to 2003.**² Turkey's level was 2 in all three categories in 2003. Yet, 2009 results indicate that Turkey remains at the same level.

- Changes in the OECD average between 2003 and 2009 are seen to be different in reading proficiency, science and mathematics tests. OECD average in mathematics dropped slightly from 500 in 2003 to 496 in 2009. Similarly reading proficiency score decreased faintly from 494 to 493. Mean science score, different than the other two categories rose from 400 in 2003 to 501 in 2009.
- Comparison of the 2003 and 2009 PISA mean mathematic scores reveal that high-performing countries of 2003 preserved their average scores or faced deterioration in performance, with some exceptions (Switzerland, Germany, Poland etc.). On the other hand, bad-performer countries which scored at or below level 2 ensured higher scores in 2009. Among this group Turkey is one of the countries who enabled the highest rise in scores (Figure 1).

Figure 1 PISA Mathematics Mean Score, 2003-2009 Comparison

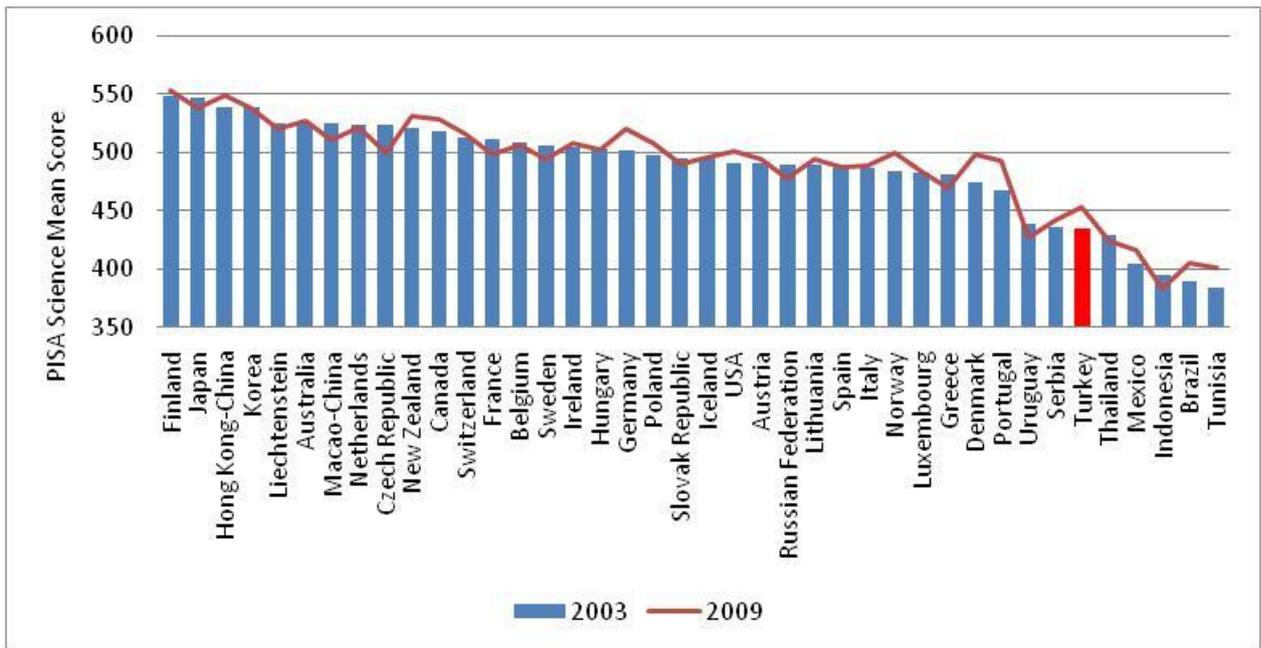


Source: PISA 2003 and 2009

A similar assessment for science scores does not reveal a significant trend in the performance of countries between 2003 and 2009 (Figure 2). Nonetheless, Turkey following Portugal and Denmark ranks the third across 24 countries who improved their score in 2009.

² The levels vary from 1 to 6 and show the proficiency of students in relevant category.

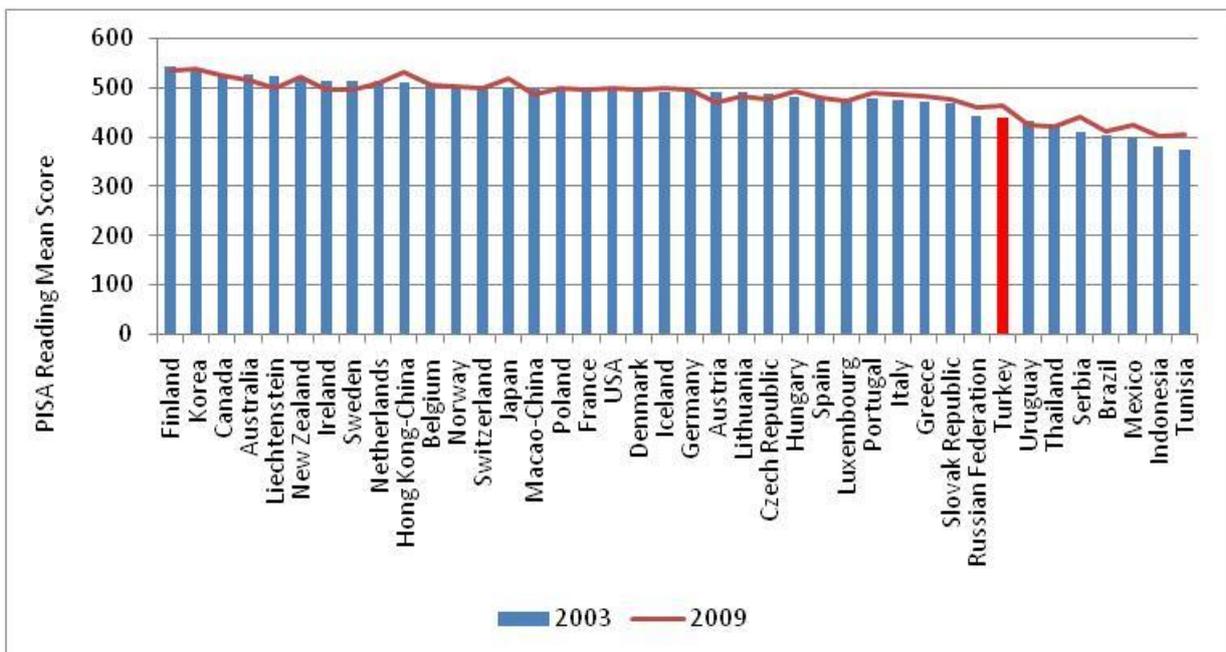
Figure 2 PISA Science Mean Score, 2003-2009 Comparison



Source: PISA 2003 and 2009

Concerning reading proficiency scores it is seen that bad-performer countries of the 2003 test which had at scores at level 1 or 2 witnessed improvement in scores in 2009 also with certain expectations (Figure 3). On the other hand, high-performer countries in 2003 remained the same or dropped except a few countries.

Figure 3 PISA Reading Mean Score, 2003-2009 Comparison



Source: PISA 2003 and 2009

The partial improvement in Turkey's performance as observed in PISA results can be considered as a positive outcome of the recently rising education expenditures. Projects aiming to ensure school enrollment across girls, provision of school books free of charge and financial support mechanisms such as expanding elementary and secondary school scholarships to more students in particular, played a significant role in increasing the schooling rates. Schooling rate for elementary schools reached from 90 to 95 percent whereas that for secondary schools increased from 62 to 74 percent, both from 2000 to 2008. Along with the policies targeted at increasing schooling rates, more classrooms were opened at schools enabling a fall in the number of students per classroom. Moreover curricula for formal and informal education were altered, redesigned and implemented gradually between 2005 and 2009. In this context, curriculum of many courses was also changed.

As analyzed above, the impact of such policy steps are visible in the limited improvement Turkey achieved in 2009 PISA test results. Nonetheless, such measures are still inadequate to enhance Turkey's score as a whole and to posit it in an upper level. Efforts made so far only enabled Turkey to keep its current position. Therefore, need for a comprehensive curricular change and more importantly for an integrated education reform prevails.

It is of critical importance to improve the schooling rate and to develop and maintain policies to devise the content of education with a focus on the needs of Turkey in order to ensure a higher position for Turkey in the international rank.