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The Comparison Between successful and unsuccessful countries in PISA 2009

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Abstract

This paper examines the performance of countries, which attended on the Programme for International Student Assessment (PISA) 2009 on mathematic literacy. The paper discusses Qatar, Kyrgyzstan, and Brazil's education system. It examines successful and unsuccessful countries PISA 2009 academic performance in mathematics literacy among 15 year olds students. The paper gives a better and deeper understanding of the relationship between countries success with educational reform, social, political, and economical aspects on students' academic performance in PISA.

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1. Introduction

OECD (Organization for Economic Co-Operation and Development) first organizes the Programme for International Student Assessment (PISA) it is comparing countries performing on reading, mathematic literacy and the science literacy. PISA not measures only the achievement of OECD member countries and partner countries 15 years old students' preparation to meet the challenges of the future life, their ability to find solutions when they faced with unexpected problems in life (OECD, 2009). PISA also gives feedback for policy makers who have chance to reevaluate their educational system. On this point, unsuccessful countries will have ideas about their story of failure reasons. According to PISA findings most countries started comparison with other countries and did reform on their education system. Already PISA survey was held four times since 2000 in every three years. According to PISA results Turkey has real problem on education system (YOK, 2007). OECD (2011) reported that there are few problems in PISA 2000 results but after changing and modernization in educational system. In PISA 2009 than those who reported that between 2000 and 2009 the success of students improved in many countries that participate in PISA, and the majority of students in OECD countries enjoy orderly lessons and with new educational system.

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The present study addressed the following questions; what are the differences successful and unsuccessful countries, which participated in PISA 2009? What are the reasons for the failure? The results of PISA 2009 compared for the answering those questions. The countries are Korea, Shanghai, Finland, Canada, Hong Kong, Qatar (Middle East), Kirgizstan (Central Asia), Brazil (Latin America). What are the reasons of unsuccessfulness of those three countries, which have different background; language, laws, social life, culture and even they are in a different continent.

2. The results of PISA 2009 Mathematics Literacy, Qatar, Kyrgyzstan and Brazil Evaluation:

2.1. Qatar:

In PISA 2009, 15 years old students get lower point in all three areas exam especially the lowest grades got for mathematical literacy. The education system in Qatar had great importance. The government of Qatar provides all necessary support financially and even has a different budgets are also provided large quantities. So, if the finance is important like in all area of life, it should help educational reform. The separate budget could help for schools to have technological tools, spent money for teacher trainings, could bring experienced teachers or experts who could educate students according to PISA areas of questions. But, in Qatar the situation is completely different. Qatar educational system allows students to have religious courses, which are occupied in school program. In the face of all attempts made in this case, the cause of religious priority decrease the student's success in PISA. So, the investigation is not enough in education, many principles should be the reasons for students success. Particularly on the subject of religious training be included in regular classes more often said that the program rates (OECD, 2009). Later leads to the disruption of the system of education reform progress. At this point, it is important to start early necessary reforms in order to see the positive results of the reform. Classroom environment and student motivation and interest of the physical condition not suitable for the class on the student intake capacity of the course is due to deteriorate the quality of the crowd. Middle level teachers and teacher qualifications, or is adequate (satisfactory), unfortunately this is not enough to improve the situation. Financial power of education is not successfully influence on the correct way; it is possible to say that the case of Qatar educational system is under control of religious. Also, gender disparities in education affects the level of success is clearly evident. More often than girls to boys prefer to work on the educational positions. It can be the one of other reason on student's unsuccessful. Gender disparity on working environment creates an imbalance. The gender gap is a very high degree of Qatar as well as the state administration and education, growth, development, and progression continues to be an obstacle.

2.2. Kyrgyzstan:

In 1991 Kyrgyzstan gained its independence after collapse of USSR. Kyrgyzstan gained its independence newly. Before 1991, Kyrgyzstan was getting all the necessary support from USSR. The long period is needed for countries development in all area include education (INCORVUZ, 1999). Every area of the country effected with low level of economy. In Kyrgyzstan the necessary improvement needs on education, politics, economics, religion and culture cannot progress well (ADB, 2007). In this case, when we look at the education system, reform and improvement efforts needed; on this point we see the economical barrier. Starting with teacher's salary should be good point to start. The salary of the teaching profession is low because of their low level of economic. The high salary or necessary salary is important aspect for teachers' motivation. Low salary has negative effects on students' achievement. The country's educational vision also must be change; lack of educational reform all the time in all case could bring unsuccessfulness. The advancement of new reforms also leads student's high achievement (ADB, 2005).

2.3. Brazil

The case of Brazil is also completely different from Qatar and Kyrgyzstan. According to other countries in the world, Brazil hosts the ethnic diversity. In the country different cultures, language, beliefs, and different races dominated. It has a very large population immigrated to the Brazil from all around the world. Different race is

creating racism in the country. Black and white citizens in the country to create common problem areas, each area are a problem on the subject of racism (Ministry of Education, 2008). For political reasons, while the indigenous people cause ethnic conflicts in the absence of changes in the light of this. In the schools, students from different race had a conflict each other in the school then it effects their academic achievement. Because, daytime students cant go to lecture because of gang students. Therefore, this problem is largely reflected in the education system negatively. Beyond this ethnic problems and racist population which is even in the school administration, the economic crisis hunting Brazil. Brazilian state does not have money to give fund to education system for reform. The state does not fund the financing of development in terms of disadvantage. Also, teacher has very low-level salaries because of national economical crisis. The inefficient and low salaries provide low motivation among teachers (UNDP, 2002). The other problem is language diversity in education because of different students from different cultures. This situation leads to insufficient programs and students are failing from their courses because language barrier. Even they talk about racial quotas in all schools. Racial quotas for each school to have more of the rights recognized in the white race creates imbalance in the level of success. The lack of confidence in the students and the public on corruption and insecurity in the region and lead to impaired motivation effect Brazil.

There are sufficient financial support opportunities in Qatar and also in the development of the state to help in this regard. Unfortunately, there is no such progress in the field of education. Qatar's educational reforms, big amount of fund and teacher training could not do any changes according to student performance in PISA. It is because of pressure of religious in the field of education. Even the national policy does not allow other cultures and religious to interfere to their people. On this point, the foreign teaching staff cannot work. The situation is much worse for Kyrgyzstan. The poverty and low salary for teachers is disadvantage in education environment. Also, lack of proper education system and the rules of the country put Kyrgyzstan into difficult situation. Finally, we look at Brazil; we see that both economic and racism in the school environment creates problem on students achievements.

2.4 Differences and Similarities:

In this study, similarities and differences between the three countries studied. The differences and similarities found on countries economic, social, and politic reason. Basic Problem Topics:

1. Financial disabilities (Economic) in Kyrgyzstan & Brazil.
2. Religious and gender disparity (Social) in Qatar.
3. Racism / fragmentation (Political) in Brazil.

Kirgizstan and Brazil have the similar in terms of financial disabilities. These two countries are extremely weak financially and technological support needed in terms of educational superiority. Economic situation is important in the school because teacher needs to well paid, needs modern equipment's and most important aspect is reform in education. For Brazil there is other reason which racism among students, school administrative and parents. The both negatively effective situation differentiate Brazil from other countries. Qatar's economical superiority and expenses for education don't make any difference on students' academic achievement, because of religious and gender disparity. High financial budgets reserve for Qatari education expenses but the country is under the influence of religious. Qatari school program shows that religious classes are most dominated than necessary courses, which are math, science, English, and literature for PISA. It seems that secular education is not in Qatar that controlled under religious opinion (SEC, 2007). In Brazil, there is secular education but racism and economical inefficiency is dominant. Kyrgyzstan has secular education but economical problems could be the reason for students' academic success.

2. Method

The Organization for Economic Cooperation and Development (OECD) conducts PISA firstly in 2000. The data

for this study were collected from Programme for International Student Assessment (PISA) 2009. The 64 OECD and non-member of OECD countries participated in PISA 2009 and nearly 475,000 students evaluated according to their mathematical literacy, reading literacy and scientific literacy. For this study, as a method available literature reviewed collected. The official, national and international of the Programme for International Student Assessment (PISA) reports have searched (OECD, 2010d). The Internet resources and the OECD booklets on the subject of the Programme for International Student Assessment (PISA) contributed to the literature review. In this study, beyond all this preparation, the countries -which participated in PISA- official web page about education were searched. The data collected from OECD reports of countries are Korea, Shanghai, Finland, Canada, Hong Kong, Qatar (Middle East), Kirgizstan (Central Asia), Brazil (Latin America).

3. Tables

In the Programme for International Student Assessment (PISA), on 15 year-old-students' evaluated on reading literacy, mathematical literacy, and scientific literacy (see Table 1). For the current study PISA 2009 mathematical literacy result considered to compare countries.

Table 1. Areas of application in PISA

The year	2000	2003	2006	2009	2012	2015
Measured topics	Reading, mathematics, science,	Reading, mathematics, science,	Reading, Mathematics, Science,	Reading, Mathematics, Science,	to be determined	to be determined

Discussion and Conclusion:

The present study aimed compares those successful countries, which are Korea, Shanghai, Finland, Canada, Hong Kong, and unsuccessful countries, which are Qatar (Middle East), Kirgizstan (Central Asia), Brazil (Latin America). Korea, Shanghai, Finland, Canada, Hong Kong, is successful in the PISA 2009 assessment. Qatar (Middle East), Kirgizstan (Central Asia), and Brazil 's (Latin America) success rate is lower compared to the country.

Looking at the overall success of these countries in PISA 2009 shows that the first factor is that the governmental reforms and those successful countries educational system indicates that their successful of the countries is because of their education. They see the importance of education, which is the way to educate people and it necessary for the development of the country. This is why these countries have listed a lot of investment in the field of education. For example, each year, reforms and teacher trainings are available for quality education. It is their priority to have to qualified and well-trained educators. In this case, a high level of success is directly proportional to the importance of education. For countries with low levels of success in PISA 2009 than it is not possible to say the same things. High and low level of success if these countries to devote to two groups, the biggest difference between idealist and a philosophy of secularism we see. The unsuccessful countries have both financial and ideological insufficiency. There is no such problem like economical, political and social in successful countries, which attended in PISA. The successful countries are economically prosperous, modern and idealist thinking plays a major role in their education system. But the case is not the same for Qatar; economic level is high all the time but the religious superiority control and against the idealistic thinking. In Qatar case, the fact is not financial the money is enough for expenses in education. Political dimensions of the obstacles in Brazil the situation is completely installed and the layout of the country conquered racism in higher dimensions. As a result, philosophy of education for economic reasons or because of deficiencies and improve this situation in terms of development of the countries will require appropriate

solutions to the situation.

Recommendations:

PISA 2009 reports on examining the fundamental causes of failure were found. Has been studied in three different countries, they are different from each other's problems. According to findings, in Qatar religious repression is strong, in Kyrgyzstan poverty and racism in the education system in Brazil. Finally, it is possible to say that the different issues effect on those countries success on international exams like the Programme for International Student Assessment (PISA). Qatar economic reasons are not effective, it is economically developed and Qatar gives find on the education system. But in other countries finance is a big issue. Brazil and Kyrgyzstan have serious financial problem in the country. That's why the authorities don't give find to the education because of economic crisis on those countries. This issue might be addressed and led to international aid or funding requests. Also those countries should be support by international aids or needed equipment, and expert might be appointed on those countries, which will help on their education system. Then the countries will have chance to take advantage with more powerful sources. Financial superiority is needed for radical changes in education policy in these countries. It is inevitable that financial support is necessary.

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