

Emerging Markets Queries in Finance and Business

Education and Poverty

Mihaela Mihai ^{a*}, Emilia Țițan^{a,b}, Daniela Manea^{a,b}

^a *The Bucharest University of Economic Studies, Bucharest, postal code: 010374, Romania*

^b *Institute of National Economy, Bucharest, postal code: 50731, Romania*

Abstract

There are many, various and interconnected causes of poverty, and we can't use a magic formula to eradicate it. But, we can consider education as a reducing risk element of high poverty, which may prevent the occurrence of another generation, much poorer.

In the underdeveloped countries and developing countries, people instinctively know that education is a good thing for their children, and in developed countries, we have a lot to learn and to relearn about the importance of education. People who live in poverty are aware of the fact that sending their children to school will give them opportunities that they didn't have.

Even if education is not sufficient, due to the multidimensional nature of poverty, is it possible to consider it vital in the reduction of social exclusion?

© 2015 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Selection and peer-review under responsibility of Asociatia Grupul Roman de Cercetari in Finante Corporatiste

"Keywords: education; poverty; social inclusion/social exclusion; innovation; globalization"

* Corresponding author: Tel.: +40-0721-283-704.

E-mail address: mihaela2173@yahoo.com.

Acknowledgement

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU 159/1.5/S/134197 "Performance and excellence in doctoral and postdoctoral research in Romanian economics science domain".

1. Introduction

The link between poverty and lack of education is a research topic increasingly more common in the last decade. In general, poverty makes us think of education failure, which means that children born into poverty are born in a vicious circle of poverty, of which they cannot escape. Those born in poverty, are less prepared or not prepared at all for the school, this practically represents a failure compared to other children from primary school. This leads to the inability to integrate. The question that follows: In such circumstances, can a child born in poverty get out of this cycle? Even if sociologists and researchers have different approaches in this area, though they came to a common conclusion: for the vast majority of children born in poverty the chance of success in education is lower, therefore results a higher probability of failure of education. Following this failure, their chances of success as an adult are limited, which can makes us think of social exclusion.

At a global level, in the nowadays economy, to complete a post-secondary education can make the difference between a life of poverty and a secure economic future. But, however, in Romania, the graduation rate is alarmingly low. For low-income students, the high-school or higher graduation rate drops, so it is necessary to implement strategies to reduce the dropout rate.

On the other hand, Androulla Vassiliou, Commissioner for Education, Culture, Multilingualism and Youth, said: "It is totally unacceptable that so many young people lack the basic skills of reading and writing in Europe. This puts them in a position of risk of social exclusion, making them harder to find a job and reduces their quality of life. I noticed some progress in the last decade, but not enough. Literacy is the foundation of learning - that is why we recently launched a literacy campaign aimed at all ages and especially those from disadvantaged backgrounds such as Roma children."

2. "Social context"

Most families living in conditions of extreme poverty cannot afford to send one or all of their children to school. Moreover, in many countries, even primary education must be paid, and secondary education is free and compulsory only in developed countries and in some less developed countries.

Let us not forget that in addition to tuition and fees related to textbooks and school supplies, the family pays even for "extra schooling", vital to any kind of academic success.

Besides the fact that poor families cannot cope with these financial limitations, there are also economic realities. Children have to quit school in order to earn money where "welfare" would depend on the family. Moreover, dropout because of poverty leads to the perpetuation of child poverty and the potential to achieve incomes decreases. Later all these will turn into lack of responsiveness to change and low capacity to improve quality of life. In conclusion, lack of education perpetuates poverty and poverty limited access to education.

Then we can look at poverty both as a cause and as an effect of insufficient access to completion of quality education. Basically, poverty reduction entails ensuring access to quality education.

In Romania's case, the recent reports related to economic, social and territorial cohesion made by the European Commission, revealed that there are more churches per capita, backward infrastructure, growing corruption, and its people are the poorest and worst uneducated in Europe. Meanwhile, in our country, the social gap between urban and rural areas remain considerable. Besides a higher poverty rate in urban than in rural areas ruary, the study contextual analysis of statistical indicators is easy to see that the share of people with higher education is much higher in urban areas compared to only 3% in rural areas.

But, from my point of view, the saddest thing in this context is related to the problems of education.

Following the results of the tests: PISA, TIMSS, PIRLS, which aim to assess how viable is the connection between curriculum and reality, it turned out that 30% of Romanian student`s suffering from functional illiteracy. Basically they did not understand how the concepts can be applied in practice.

3. "Education and development"

A great deal of theoretical debates about the role of education in development and economic growth and, consequently, in combating poverty, are focused on the productive aspect, in the economic sense, of education. There are many statistics and reports showing that the level of schooling of population is correlated with the level of economic development.

We should not forget that education creates awareness that facilitates a higher level of productivity and, though expensive, can consider it brings benefits associated which can be compared to its costs, as happens with any investment project.

There is a strong relationship, empirically demonstrated, that shows us that most of the time in all societies there is a correlation between the level of education given to wage the employee. Which means, in the context of "normal" assumptions of markets and competitive goods, that people with higher levels of education appear to have, on average, a higher level of productivity. Employers are using learning skills as indicators for estimating the potential productivity of employees. Looking from another angle, depending on age, people with an advanced level of education, not only begins work at a higher level, but their progress is much faster, which for people with a low degree of education happens later in life.

Indeed, people who have a medium level of education through their profile, tend to have earnings that remain fairly constant throughout their life-in the sense that the limitation occurs and evolution cannot be spectacular.

4. "Education, poverty and social inclusion policies"

We should not forget that a very important role in combating poverty is owned by State, through the economic and social policies that it develops. Measures for prevention and reduction of the risk of poverty and social exclusion are covered in the general framework of multidimensional action of the process of social inclusion. This process ensures opportunities and the necessary resources for the participation of people and vulnerable groups in economic life, social and cultural advancement of society and also in the decision-making processes that relate to life and their access to fundamental rights.

The process of social inclusion represents a sum of multidimensional measures and actions. As we know, economic growth and employment are fundamental elements in the fight against poverty and social exclusion. But, let us not forget that in order to reduce poverty, it is required an extensive set of social policies, including policies for directed education, this being due to the fact that education and training have a direct impact on what people can and can't do.

Educational systems, both at the micro and macro-level, have an important role in supporting social upward mobility. Education in all its forms, in my opinion, is one of the most important factors in breaking the vicious circle of intergenerational transmission of poverty. Investments in this area are profitable over the long term and bring the most reliable profits. At the same time, investment in education of children, especially those who are at the beginning of the road, represents a safe start in life. Heading to this, nations are creating for themselves both or education and training systems more inclusive at all levels and for all ages, whether we speak of primary and secondary school levels, higher education or vocational training and education for adult persons.

One of the main objectives of the Europe 2020 strategy is the reduction of early school leaving. Thus, if the number of students who leave early education by 2020 would be reduced by less than 10%, this would represent a significant contribution to poverty reduction. This is all the more true as we know that a sufficient

level of competence and skill is indispensable for vocational integration capacity of the current markets of youth employment.

5. "Education Index - The Global Index of Cognitive Skills and Educational Attainment"

The education systems, though they have the same purpose, are analysed and evaluated differently in each country. Thus, in the year 2012, Pearson asked the help of The Economist Intelligence Unit to collect, organize, and interpret data about 50 education systems in the world with the objective of global analysis on the learning results. All this had as result the Learning Curve - the only resource where there is cumulated data on 2,500 educational, economic and social indicators, of the widest range of international educational indicators.

To highlight the influence of this index on poverty, I deemed it necessary to try its construction on a larger period of time. Bearing in mind that this index has been calculated since 2012 we considered that in order to demonstrate the connection between education and poverty reduction it is required a calculation of the index for a previous period. For this purpose I took as the starting point the results of TIMSS assessment tests, PIRLS and PISA. These are used to explore educational issues, including monitoring and setting goals and standards both for the improvement of education and training curricula, improvement of teaching methods and learning through research and data analysis, and related studies.

International students' testing began in the early 1960s, when the International Association for the evaluation of Educational Outcomes (IEA) has developed a math test that could be used to compare the performance of students in different countries.

PISA - Program for International Student Assessment is a global study carried out by the OECD, in member and non-member States on the school performance of the pupils aged 15, in mathematics, science and reading. It was achieved for the first time in 2000 and then repeated every three years. It is done in order to improve education policies and outcomes. At first, PISA was designed with a particular method of data analysis in mind. But, since students working at different test booklets, raw scores should be "to scale", in order to allow meaningful comparisons. The scores are scaled so that the OECD average in every field (mathematics, reading and science) is 500, and the standard deviation is 100.

TIMSS – Trends in International Mathematics and Science Study measure trends in mathematics and science concepts' provision for pupils of the fourth and eighth. It was achieved for the first time in 1995 and then repeated every 4 years.

TIMSS Advanced - measure progress in assimilating the notions of mathematics and physics for students in the last year of high school. It was released in 1995 and 2008, and is scheduled for 2015 (with the sixth TIMSS assessment).

PIRLS (Progress in The International Reading Literacy Study) - study on the progress of reading competence at international level – it takes place every 5 years and it was achieved for the first time in 2001. It represents a comparative study on reading performances managed by the participating States students at the end of primary education.

If we look at the impact of poverty on General scores obtained in the tests above, we observe that poverty, as usual, had a huge impact on the PISA reading test results for students. This makes sense, especially if we remember that among other things, high poverty means less access to books at school, at home and in the community.

PISA standard tests were applied in Romania since 2006, and the results placed Romania among the countries with low performance in the three areas of analysis, a situation highlighted by the EU Youth Report, our country being on one of the places 45-50 depending on the type of competence.

According to Eurostat data, the rate of early school leaving has fluctuated during 2000-2013. As shown there are periods of significant increases or decreases, the highest value being recorded in 2002 - 23%, and the lowest in 2008 to 15.9%. Along with the onset of economic crisis in our country there can be observed a slight increase in the period 2008-2010. But although since 2011 there has been a relaxation of this indicator, the percentage is however worrying, as 17.3% (in 2013) of the population aged between 18 and 24 years are at risk

of unemployment and inactivity. Nationally, this is a particular problem among men, and regionally in Central region, North East and South Muntenia.

Table 1. The scores obtained in the tests PISA, TIMSS, PIRLS

Year Test	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
PISA	354,1	359,21	364,31	369,41	374,51	379,61	384,71	389,82	394,92	400,02
TIMSS	472,5	473,72	472,9	472,08	472	470,44	469,62	468,8	472,5	467,17
PIRLS	512,08	511,07	510,06	509,05	508,04	507,03	512	505,01	504	502,99
Year Test	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
PISA	405,12	409,7	415,32	420,43	426,57	430,63	435,73	440,31	445,93	451,04
TIMSS	466,35	465,53	461,61	463,89	463,07	462,25	461,32	460,62	459,8	458,98
PIRLS	501,97	489	499,95	498,94	497,93	496,92	501,89	494,9	493,89	492,88

Source: <http://timssandpirls.bc.edu>
<http://www.oecd.org/pisa>

The proposed target in the context of Europe 2020 is 11.3%. To achieve this rate is not enough to develop existing inclusion policies but these need to be developed, and if they are not sufficient, to develop new policies and measures aimed at reducing the rate of early education system.

Table 2. The rate of early school leaving in education and training and tertiary education

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Rates of early school leaving	19,7	19,1	21,5	22,9	21,7	23	22,5	22,4	19,6	17,9	17,3
Tertiary education graduates	8,9	8,8	9,1	8,9	10,3	11,4	12,4	13,9	8,9	8,8	9,1
Year	2008	2009	2010	2011	2012	2013					2020
Rates of early school leaving	15,9	16,6	18,4	17,5	17,4	17,3					11,3
Tertiary education graduates	16	16,8	18,1	20,4	21,8	22,8					34,6

Sursa: EUROSTAT, INS

On the other hand, note that in the share of tertiary education graduates case the oscillation is much smaller, and the trend is upward. However the percentage is well below the EU average. The target for Romania in the context of Europe 2020 is 34.6%.

6. Conclusions

Is the result of this investigation responding to the question "How much does the education influences the reducing of social exclusion?"? It is clear that in recent years, both nationally and globally, education and welfare levels are correlated the latter decreasing substantially as the level of education increases. More correctly, a causal relationship on long or short term.

The comparison of various generations at a time, it reduces any contamination of other school policy changes. On the other hand, „Two countries with similar levels of prosperity can produce very different results”, Ángel Gurría, the OECD secretary general, said in 2010. “This shows that an image of a world divided

neatly into rich and well-educated countries and poor and badly educated countries is now out of date.”

According to studies, test results showed that the training skills of children is weaker as the family is poor. Meanwhile, according to a study led by Professor Jane Waldfogel of Columbia University showed that "compensatory education programs" could help to a good start in educating a child. For example, access to toys, books, computers and learning are related activities which may be directly affected by the lack of income."

Waldfogel found that children of four years from the poorest families got 34 points out of 80 in literacy tests, compared with 69 points from 80 for children from richest families. After a similar test, in the UK were similar results. After the study she stated that the environments of low-income children differ in many dimensions from those of more affluent children. For example access to toys, books, computers and learning related activities may be directly affected by lack of income”.

The problems and challenges in the field of education may often seem easy to crack when they are at the level of the institution, but when we speak of a State or expand it globally, things are more complicated and more complex.

At the same time, the number of young people who do not participate or education or does not have a job is worrying. This can generate only one conclusion, namely the need for the development and implementation of a range of support for youth policy aimed at strengthening the link between education and training on the one hand and the labour market on the other hand, by proposing measures to improve the capacity of professional insertion of young people.

References

- Andrei T., Profiroiu A., Iacob A., Ileanu B., (2011), *Estimări ale dimensiunii abandonului școlar și ale factorilor de influență*, Revista Română de Statistică nr. 11/2011
- Bird, K., Pratt, N., O'Neil, T. and Bolt, V.J. (2004), *Fracture Points in Social Policy Formation for Poverty Reduction*. Working Paper No. 242. London: ODI.
- Green, M. and Hulme, D. (2005), *From Correlates and Characteristics to Causes: Thinking about Poverty from a Chronic Poverty Perspective*, World Development 33(6): 867-879.
- Istrate, G. (coord.) (2010). *Sistemul educațional în România. Date statistice*. București: Institutul Național de Statistică
- Voicu, L. (coord.) (2010). *Renunțarea timpurie la educație: posibile căi de prevenire*. București: Ed. Vanemonde.
- Wilson, F., Kanji, N. and Braathen, E. (2001). *Poverty Reduction: What Role for the State in Today's Globalised Economy?* London: Zed Books.
- Caiete statistice INS privind învățământul preșcolar, primar, gimnazial, profesional și liceal din România, Institutul Național de Statistică.
- Economic and Social Development Deep-Burn Project: Annual Report for 2009, Idaho National Laboratory, Sept. 2009.
- European Commission Preliminary version Investment for jobs and growth Promoting development and good governance in EU regions and cities (Sixth report on economic, social and territorial cohesion)
- European Commission, Combating poverty and social exclusion A statistical portrait of the European Union 2010 Luxembourg: Publications Office of the European Union 2010 — 111 pp. — 14,8 x 21 cm ISBN 978-92-79-13443-2
- Eurostat. (2012). Statistics by theme. Retrieved from <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>.
- RAPORT AL COMISIEI CĂTRE PARLAMENTUL EUROPEAN ȘI CONSILIUL AL șaselea raport intermediar privind coeziunea economică și socială {SEC(2009) 828 final}
- Sintezele inițiale ale proiectelor de analize socio-economice elaborate până în prezent la nivelul Comitetelor Consultative, Reuniunea Comitetului Interinstituțional pentru Acordul de Parteneriat (CIAP), 2 noiembrie 2012
- Strategia Națională pentru Ocuparea Forței de Muncă 2014-2020
- The Global Information Technology Report 2012, World Economic Forum's Centre for Global Competitiveness and Performance, 2011
- <https://statistici.insse.ro/shop/?page=tempo1&lang=ro>
- <http://thelearningcurve.pearson.com/>
- <http://timssandpirls.bc.edu/#>
- <http://www.oecd.org/pisa/>
- http://epp.eurostat.ec.europa.eu/portal/page/portal/income_social_inclusion_living_conditions/data/main_tables