

Reading Summary: To Learn – The Importance of Showing Up

It has always been universally agreed that education is an important part on economic growth, both on individual and aggregate level. Many development policies have been built around the goal of achieving, at the very least, universal minimum level of education. “To Learn” identifies the two most basic input to education – students and teachers- and lays out policies that has been successful in getting both to the major part of education – schools.

On the first end is the student. Although return in education is proved to be high, there are at least 115 million school-age children around the world that are not in school. The possible explanation for this fact is simply that education is too costly, both in real money term and in term of opportunity cost.

In some countries, the government does not provide free public schooling. Although there are more and more countries where education is readily available, there are many other explicit costs incurred such as PTA fees (additional charges for exam preparation) and registration fees for nationwide standardized tests. Moreover, The opportunity cost in term of sacrificed earnings the student could have earned out of classroom can also be high.

The burden of these costs is enough to impede many poor children from education. On the other hand, it can be observed that the will and desire for education already exist but cannot be met because of the lack of resources. Since education is what people want but cannot afford, development programs could help bring more students into classrooms by lowering the costs associated with schooling.

There are some examples of development programs attempting to provide incentives for students to come to school more. First, Clothes Make the Students program gives out uniform for free to students who meets the qualification. Cutting Checks program or conditional cash transfer gives direct payments to participants conditioning on their behavior. Then, the economists use a cue from the successful of Cutting Checks program to improve the program’s effectiveness with two variations; a change in time of payment; and, a change in structure and conditions of payments. Lastly, Deworming program provided deworming pills for free to students which not only benefit to students who took the pills but also the community as a whole.

These policies are proved to be effective in increasing the number of students who came to school and who reenroll for the following year. Nevertheless, getting students to schools is only one end of the educational inputs spectrum. On the other end is the teachers. The lack of effective monitoring mechanism and absenteeism tolerance, as well as having inadequate teachers than could effectively be taught, have been blamed for missing teachers in classrooms.

One solution is to give teachers incentives by providing low cost monitoring mechanism (cheap camera) and changing the salary structure to take into consideration attendance rate. The other solution is to add more teachers where they lack – the scheme called Balsakhis in India. This scheme was also extended to include tracking, the method of dividing classroom according to students’ ability.

Both solutions were also proved to be effective in getting teachers to classrooms. Learning outcome also improved as students get more instructions merely from the fact that there are teachers teaching them and that instructions can be better tailored to fit skill levels in skill-divided classrooms.

Beyond the effectiveness of all these policies mentioned above lies one important implication: marginal benefit of the policies is diminishing. The children with the lowest attendance rate and those with lowest skill improved the most.

Increasing teachers and students attendance is the major part of the paper and has always been a major goal for many development programs. But other problems were also mentioned; deficiencies in learning outcome; the lack of parental recognitions on the outcome, and; the ineffectiveness of local educational institutions. Remedial policies on these issues were tried out in colleges across India in an effort to see find the right combination of solutions.

Village meetings designed to improved local educational institutions and provision of academic assessment method aimed to help villagers assess students outcome were, in fact, ineffective. There was no significant changes in any kind that could translate into better schooling outcome. On the contrary, reading groups significantly improve academic outcome. Similar to the previous programs, this program shows diminishing marginal benefit where those with poorest skill improved the most.

In sum, the issue of education is multidimensional. Education requires a vast varieties of inputs that are hard to defined and achieved. Among them are the human input: students and teachers. However, both may not come together various reasons - from pure economic rationale of opportunity cost to behavioral issue of shame.

The most basic challenges of educational improvement are therefore to get both to school. A mixed of policies remedies are suggested and implemented on field level, including uniform giveaways, cash transfers and teacher monitoring scheme. In addition, some programs go beyond getting the human factor to school: trying to find a scheme that actually improve academic performance. The programs include reading groups and improvement on local educational institution.

The results are satisfying. Almost all program were successful in getting either students or teachers to school. Only the village-level meeting and provision of assessment were not successful. Perhaps most striking, the result proved to benefits those most in need - from students most likely to drop out to those with lowest skills.

Comments

There is no arguments on the importance of students' and teachers' presence, especially in developing countries where school attainment is low and accessibility is not universal (figure 1). Evidence of performance improvement by doing so is substantial (figure 2). Nonetheless, the fact that many government still put emphasis on enrollment instead of attainment, and diminishing marginal benefit of getting more inputs (as implied in this text) are concerning.

Figure 1: educational attainment by regions

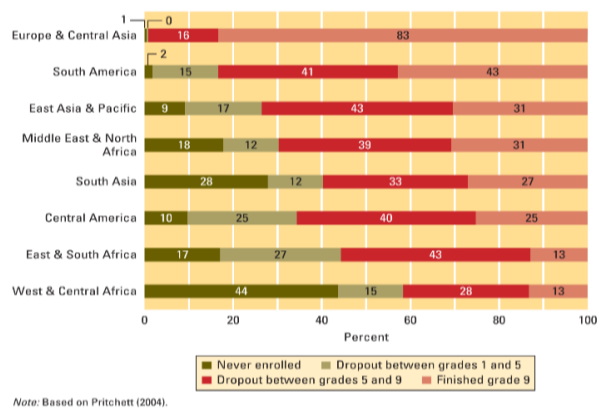
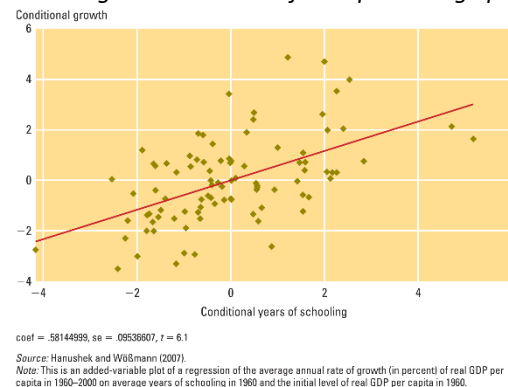


Figure 2: each year od schooling is associated with long-run growth increase of 0.58 percentage point



Source: Hanushek and WoBmann in World Bank (2007)

Policies aiming to increase enrollment are based on the notion of increasing productivity through education. Although there exists a nonlinear positive relationship between school enrollment and income level (figure 3), the relationship is far from perfect: enrollment and income rise together only up to a certain level (around \$20,000) As everyone would have noticed, students enrollment offers no guarantee of attainment (figure 4). There is no observable relationship between enrollment rate and attainment rate¹.

Apart from getting more students and teachers to school, there are other inputs that could be added to school as well. Some possibilities include; improvement in school quality; in accessibility to schools such as transportation and constructions of schools in rural areas; and adding resources such as qualified materials. Indeed,

¹ Note that the dataset is small. This conclusion may not hold under broader dataset.

Figure 3: cross sectional relationship between enrollment rate and GNI per capita, 2014

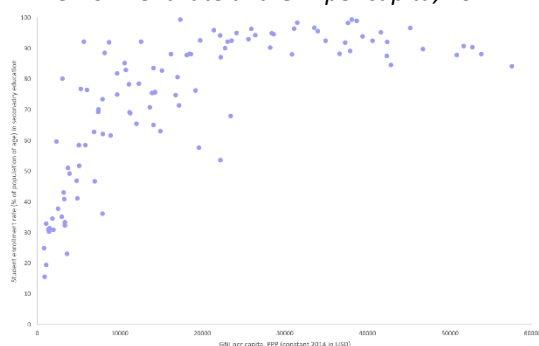
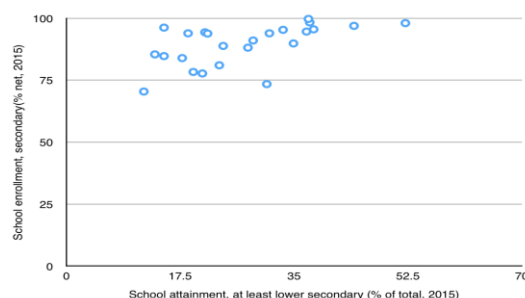


Figure 4: cross sectional relationship between enrollment rate and attainment rate, 2015



Data source: World Bank

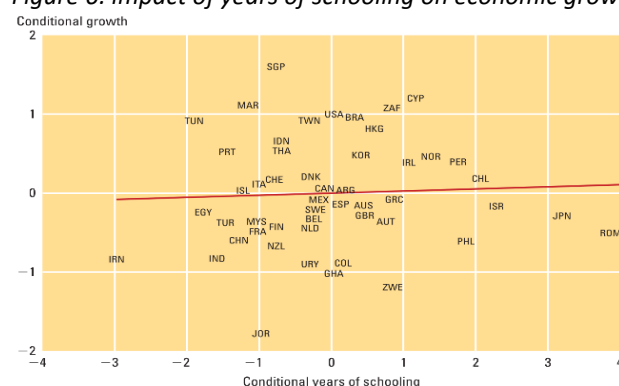
the paper does mention policies such as tracking an reading groups that changes schooling outcomes. Here, we would like to emphasize the importance of school quality (figure 5) as compared to school attainment (figure 6).

Figure 5: impact of test scores on economic growth



coef = 1.9804387, se = .21707105, t = 9.12

Figure 6: impact of years of schooling on economic growth



coef = .0264058, se = .07839797, t = .34

Source: Hanushek and WoBmann in World Bank (2007)

Figure 6 education as determinate of income per capita growth

	(1)	(2)	(3) ^a	(4)
GDP per capita 1960	-0.379 (4.24)	-0.302 (5.54)	-0.277 (4.43)	-0.351 (6.01)
Years of schooling 1960	0.369 (3.23)	0.026 (0.34)	0.052 (0.64)	0.004 (0.05)
Test score (mean)		1.980 (9.12)	1.548 (4.96)	1.265 (4.06)
Openness				0.508 (1.39)
Protection against expropriation				0.388 (2.29)
Constant	2.785 (7.41)	-4.737 (5.54)	-3.701 (3.32)	-4.695 (5.09)
N	50	50	50	47
R ² (adj.)	0.252	0.728	0.741	0.784

Dependent variable: average annual growth rate in GDP per capita, 1960-2000. t-statistics in parentheses. ^a Regression includes five regional dummies.

Source: Hanushek and WoBmann (2007)

The World Bank² states that “expanding school attainment, at the center of most development strategies, has not guaranteed better economic conditions”. In fact, the explanatory power of quantity of schooling (proxied by years of schooling) largely vanishes once quality of schooling (proxied by test score) is added to the model as control variable (figure 7). Moreover, once the variable is added, the explanatory power of the model increased substantially. It’s explanatory power also remains unchanged when other control variables such as economic institution and geography are added.

Note that we still see the importance of school attainment, especially for countries whose attainment level is low. Getting students to school may have micro impact, but studies show that on macro scale, the impact may vanish. However, we would like to emphasize that focusing the on attainment alone without striving for quality may be misleading.

Lastly, we would like to also note that education is a life-long process that does not necessarily involve entirely of schooling. Cognitive skills important to growth can also be acquired out off school: families and peers as well as health and nutrition. Social impact on education, although hard to quantified and measured, should not be neglected altogether.

² World Bank Group. (2007). “Education Quality and Economic Growth”. Washington DC, United States.