The inequality of school facility across Pakistan

The data from UNESCO showed that Pakistan is among the countries that show the least progress in improving learning levels. In 2010, only 2.3% of the nation's GDP was allocated in education.

ASER – The annual Status of Education Report is a survey of the quality of education. It seeks to fill a gap in educational data by looking to provide a reliable set of data at the national level, that is comprehensive and, at the same time, easy to understand. In 2011, ASER Pakistan surveyed 85 rural districts in all provinces together with 3 urban districts in the nation.

The private schools are much better in terms of all kinds of school facilities than government schools. In order to make the comparison more simple, I categorized these facilities into different groups. The biggest difference of school facilities are the most basic (the basic facility category) and most advance (the technology facility category).
All Facilities are important, even if we take household and village level characteristics into consideration.

But – books are the single most important factors for learning outcomes!

Another interesting finding about school facilities is that they vary a lot among regions. Affluent areas have better schools. In the graph below, different color bars stand for different province. We can see that the gap between provinces are huge. Islamabad, the area includes the capital city and enjoys the highest literacy rate, has huge advantage across all categories of facilities, than Balochistan area. In comparison, more than half of the schools in Isalmabad have technology equipments such as computers and internet, while less than half of schools in Balochistan do not even have the most basic facilities like clean water.

This leads us to the inevitable question – whether school facilities are real influential factors to learning outcomes, or are they just an reflection of the economic and social status of children’s household, and districts where they live? We answer such question by controlling for all background variables, and compare learning outcomes among students with similar household status.

All four categories of school facility are influential factors for children’s learning, even after we control for all the background variables. In addition book related facility is the single most import influential factor for learning outcome of all three subjects. The magnitude is large – the availability of book related facilities could increase children’s learning outcomes from 9% (read) to 17% (English). The basic facilities are also import factors, and the influence is around 7%. Physic facility is influential, but the magnitude is not as large. Finally, for technology facility, it is very important for reading and English outcome – increase the learning outcome by more than 10%, but not as important for math outcome.