Do private tuitions improve learning outcomes?

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Despite increased attention to school based learning over the past decade by policy makers, the learning levels of children in the Indian education system have remained consistently low and have, in fact, declined over the past 8 years. The latest Annual Status of Education Report (ASER) shows that only 41% of children in the age group of 6-14 can read a standard 2 text (ASER 2013). Consequently, critical and rigorous analysis of policies surrounding provision of school-based education has received much-deserved attention (see Muralidharan (2013) for a detailed discussion). In the process, the role of additional educational inputs provided by households, such as private tutoring, has remained neglected.

Private tutoring is defined as fee-based tutoring that provides supplementary instruction to children in academic subjects that they study in the mainstream education system. This phenomenon, also referred to as 'shadow education', is widespread across many developing countries, including India (Bray, 2007). As per the latest ASER (ASER 2013), approximately one-fourth of children enrolled at elementary level (Std. 1 to 8) in rural India attend private tuitions. Parents and students pay, on average, Rs 170 per month, amounting to slightly above Rs 2000 per annum to attend these tuitions (Wadhwa, 2014). Despite large numbers of students attending private tuition and substantial private expenditure on it, the manner, nature, pedagogic characteristics and effects of private tutoring has escaped scholarly attention (Majumdar, 2014).

Assessing impact of private tuition on learning outcomes of school children

Finding a difference in learning outcomes of those who attend tuition and those who don't, and attributing it to private tuitions is misleading. Part or all of the difference in learning outcomes might be due to different characteristics of children who attend tuition. There are observable and unobservable differences between the two groups of children, which make it difficult to figure out the effect of tuition, if any. To give an example, ASER data indicates that children belonging to richer households are more likely to attend tuitions. Richer households are also likely to provide more support to a child in the form of other material inputs. Data also shows that children of more educated parents are more likely to attend private tuition, and more educated parents are also in a position to help the child with studies. This makes it difficult to disentangle the effect of tuition from the effect of other material inputs, or from the effect of having educated parents.

One way to disentangle the effect of tuition from the effect of inter-household factors on learning outcomes is to utilise variation in tuition status of children within a household (Dongre and Tewary, 2014).[2] To give a simplistic example, suppose there are two children in a household. One attends private tuition, the other doesn't. Then, the difference in the learning outcomes of these two children would be attributed to private tuition since all other observable and unobservable factors at the household or village level affecting learning outcomes (such as income of the household, parental education, parent's taste for education, socio-economic amenities in the village) are same for both children. But this technique doesn't eliminate the problem completely since it can't control unobservable child-specific differences such as motivation, intelligence, dedication etc. Again to give a simple example, let's assume that the more motivated among the two children opts for private tuition. Then better learning outcomes are partly the result of higher motivation. But our approach would ascribe it to tuitions alone, thus over-estimating the effect of private tuitions.[3]

We use ASER data for 2011 and 2012 to carry out this exercise. A unique feature of this dataset is availability of learning outcomes for reading and math, and information on whether the child attends private tuition. The dataset also has information about whether the child attends government or private school, age and gender of the child, class in which the child is studying, both parents' age and education, and availability of certain household amenities (such as electricity, toilets, whether house is pucca). The data is representative of rural

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[2] Our approach is similar to that used by French and Gandhi-Kingdon (2010). In technical terms, this approach is referred to as household fixed effects. The complete paper is available at http://www.accountabilityindia.in/article/working-paper/2735-impact-private-tutoring-learning-levels-evidence-india

[3] We have also accounted for age and gender of the child, grade in which the child is studying, and type of school (government or private) attended, in the analysis. Factoring in gender implies that gender differentials between children in a household (say, if the parents focus more on the education of the male child) cannot explain the effect of tuition. Factoring in school type captures the fact that parents might enrol more 'studious' or 'motivated' or 'intelligent' children in private schools. Hence, unobservable factors such as motivation are captured to some extent; yet, the possibility of bias can't be ruled out.

areas across the country. The number of sampled children in the age group of 6-14 years is close to half a million, which is a major advantage of the dataset.[4]

Tuition has a large, positive effect on math and language test scores

The results show that attending private tuition has a large positive effect on test scores of math and language (separately or combined) for students in the age-group of 6-14 years. The effect is as large as an additional year of education or the effect of attending a private school instead of a government school. Interestingly, tuitions are more beneficial for children who are more disadvantaged, and have lower learning levels. For example, the effect of tuition is almost twice as high for children enrolled in government schools, compared to those who are enrolled in private schools. Similarly, children whose parents are less educated or children who stay in non-*pucca* households benefit more from tuitions. We also analyse the effect of tuition on test scores separately of 6-10 year old children. The results remain unchanged.

There is significant variation in the prevalence of private tuition across states. In ASER 2013, states like West Bengal and Tripura have 67-69% children at elementary level attending private tuition, while the corresponding figures for Bihar and Odisha are 40-50%. We find that the effect of tuition is higher in these states compared to the effect at the all-India level.

Why do private tuitions have a positive effect on learning outcomes? One straightforward explanation is that those who attend tuition spend more time studying. Though ASER doesn't capture time spent at tuitions, analysis of India Human Development Survey (IHDS) data indicates that those who attend tuition spend, on average, 9 hours in tuitions. That would mean 1.5 extra school days per week. Another explanation could be remedial teaching in the sense that tutors might be making some efforts to identify the child's weakness, and teach accordingly. Maybe private tutoring exclusively focuses on regular mock tests and exam preparation. Finally, as Dr. Wadhwa points out in the ASER report, the link between incentives and accountability – *if someone is paying for a service, the onus is on the service provider to deliver, because the consumer can always 'vote with her feet'*.

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[4] For details, refer to the ASER reports.