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Do private tuitions improve learning outcomes?


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Assessing impact of private tuition on learning outcomes of school children

An important question that arises in this context is: do learning outcomes of children improve if they attend tuition?

Finding a difference in learning outcomes of those who attend tuition and those who don't, and attributing it to private tuitions may be misleading. 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 a few examples, ASER data indicates that children belonging to richer households are more likely to attend tuitions. But 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, but more educated parents are also

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 is widespread across many developing countries, including India (Bray 2007). As per ASER 2013, approximately one-fourth of children enrolled in elementary school (Standards 1 to 8) in rural India attend private tuitions. They pay on average, Rs. 170 per month, amounting to slightly above Rs. 2,000 per year, to attend these tuitions (Wadhwa 2014).

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About a fourth of the students enrolled in elementary schools in rural India attend private tuitions. This column analyses the impact of private tuition on learning outcomes, and finds that it has a large, positive effect on math and language test scores. The impact is greater for those who are more disadvantaged in terms of learning levels, household's socio-economic status, and education of parents.





Despite increased attention to school-based education provision over the past decade and a half by Indian policymakers, the learning levels of school children have remained consistently low and have, in fact, declined. The latest Annual Status of Education Report (ASER) shows that only 41% of children in the 6-14 age group can read a standard 2 textbook (ASER 2013). Consequently, critical and rigorous analysis of policies surrounding provision of

Tuition has 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 together) 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 effect of tuition on test scores separately of 6-10 year old

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reading tests), and information on whether the child attends private tuitions⁴. Further, it also has information about age and gender of the child, class in which the child is studying, type of school attended by the child (government or private), parental age and education, and availability of certain household amenities (such as electricity, toilets, whether house is *pucca*)⁵. The data is representative of rural 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.

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taste for education, socio-economic amenities available in the village etc.), are same for the two children. However, this technique cannot account for unobservable child-specific characteristics such as motivation, intelligence, dedication etc. To give an example, let's assume that a more motivated among the two children opts for tuition. Then better learning outcomes are partly the result of higher motivation. But our approach would ascribe it to tuitions alone, and thus our analysis would over-estimate the effect of tuition³.

We use data collected by ASER Centre, specifically data collected in 2011 and 2012, to carry out this exercise. The unique characteristic of the ASER dataset is availability of learning outcomes for reading and math (scores on math and reading tests), and information on whether

in a position to help the child with studies. This makes it difficult to disentangle the effect of tuition from the effect of other factors such as material inputs, or 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)¹². To give an example, suppose there are two children in a household. One attends private tuition, and the other does not. Then, the difference in the learning outcomes of these two children can be attributed to private tuition since all other observable and unobservable factors at the household or village level that may affect learning outcomes (example, income of household, parents' education, parental taste for education, socio-economic amenities available in the village etc.), are

on test scores separately of 6-10 year old children. The results remain unchanged.

There is significant variation in prevalence of private tuition across states. States like West Bengal and Tripura have 67-69% children at elementary level attending private tuition, while the corresponding figures for Bihar and Orissa 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, nine hours per week in tuitions. That would mean 1.5 extra school days per week. Another explanation could be remedial teaching in the sense that

identify the child's weakness, and teach accordingly. And finally, as Dr Wadhwa points out in the 2013 ASER report, there is a 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’.

Notes:

1. This work was carried out when both the authors were with Accountability Initiative, New Delhi.
2. Our approach is similar to that used in French & Gandhi-Kingdon (2010). In technical terms, this approach is referred to as Household Fixed Effects.
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



(government or private) attended, in the analysis. Factoring in gender implies that gender differential 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.

4. We carry out estimations using 2011 and 2012 rounds. Since results are fairly similar across the two rounds, we discuss results from ASER 2011 only.
5. For details, refer to ASER reports.

Further Reading

- ASER Centre (2011), ‘Annual Status of

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- ASER Centre (2011), 'Annual Status of Education Report', New Delhi.
- ASER Centre (2012), 'Annual Status of Education Report', New Delhi.
- ASER Centre (2013), 'Annual Status of Education Report', New Delhi.
- Bray, Mark (2007), 'The Shadow Education System: Private Tutoring and Its Implication for Planners', UNESCO: *International Institute for Educational Planning*, Paris.
- Dongre, A and V Tewary (2014), 'Impact of Private Tutoring on Learning Levels: Evidence from India', AI Working Paper Series, *Accountability Initiative*, New Delhi.
- French, R and G Gandhi-Kingdon (2010), 'The Relative Effectiveness of Private

- Dongre, A and V Tewary (2014), 'Impact of Private Tutoring on Learning Levels: Evidence from India', AI Working Paper Series, *Accountability Initiative*, New Delhi.
 - French, R and G Gandhi-Kingdon (2010), 'The Relative Effectiveness of Private and Government Schools in Rural India: Evidence from ASER Data', DOQSS Working Paper No. 10-03, *Institute of Education*, University of London.
 - Muralidharan, Karthik (2013), 'Priorities for Primary Education Policy in India's 12th Five Year Plan', *India Policy Forum* 2012-13, Vol. 9, pp.1-46.
 - Wadhwa, Wilma (2014), '**Private Inputs into Schooling: Bang for the Buck?**', ASER. Available at
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