

Private Tuition versus Regularity in Classes as Tools of Achieving Higher Score in Examination: Evidences from Purulia District in West Bengal

Papita Dutta

Assistant Professor in Economics,
Gushkara Mahavidyalaya, Gushkara, Purba Bardhaman, West Bengal

Abstract

This study assesses the impact of private tuition, which is a common and dominant phenomenon in education system in India, on the scores of the students along with the regular attendance in the schools in Purulia district, a western most district in West Bengal. This empirical study is based on a set of primary data collected from 309 students of class X from 20 public schools of ten blocks in Purulia district in 2020. This study reveals that regular attendance is more important than spending on private tuition to achieve better score in examination. The average score is 5 percentage-points higher for the students with regular attendance over the year than other students. Other things remaining unchanged, if the household spend 100 rupees more per month for private tuition the average percentage of score increases only by 0.5 percentage points. Thus regularity in classes is far better instrument than private tuition for improving the scores in examination. We find that both the SC and ST students fall behind the students belonging to General castes and OBCs in respect of the percentage of score in last final examination. However, the interaction effect of private tuition expenditure with SC category increases the average score in last exam, while this interaction effect for ST students does not appear significant. Therefore, private tuition may help the students belong to lower social castes.

Keywords: Private Tuition, Purulia district, Regularity in School, Scoring function of Education

Introduction

The main purpose of education is all round development of a student. It is the human development purpose of education system. In this sense school education is crucial for building and maintaining the social structures and values of a nation. Partially, the education system helps students to learn a particular syllabus and assesses and classifies the students on the basis of educational achievement. Regularly higher achieving students are selected for higher education and for attractive occupation. This is referred to as 'scoring' function of education (Muralidharan, 2019). Traditionally Indian education system is driven by scoring rather than human development. With this end in view; Muralidharan, (2019) has argued that current Indian education system is best understood as a filtration system. There is nothing wrong with the scoring function of the education system. Every country in the world takes the help of academic scores at different stage of education to identify its most talented citizens and pick them for serving the society as a whole in an efficient manner. Further, employers use the scores of the student as signal of their capability. So parent considers expenditure on education as a good investment. Achievement in examination is considered as the return of investment. However, an important point is that, in scoring based education system there is no formal facility of teaching to the students with low scores in achievement. That is why; private tuition is needed for pushing the students with low scores and capacity as well as for

the so-called good students for better and much better score. Education, sometimes, is considered as status symbols in our society. Private tuition is quite a common and dominant phenomenon in education system in India. According to International Encyclopedia of Education private tutoring is a teaching method in which one student or a group of students receives individualized instruction of a teacher. The system of “private tuition” is running parallel to formal education system across the globe. Private coaching mainly provides academic support to those students who fail to learn with their classmate. A large section of students at secondary and senior-secondary levels join private tuitions to earn good score in board examinations. It also helps the students whose learning are affected due to school inadequacies like availability of experienced and qualified teaching staff, teacher absenteeism, ineffective teaching and negligence on the part of teachers or biased behavior etc. Private tuitions can significantly guide students to understand their lessons better by catering to their individual needs. Supplementary tutoring may also benefit the brighter/good students to acquire knowledge beyond their syllabus. In recent years private tutoring emerged as major force as a result of both demand and market mechanisms. The system of private tuition is not a new phenomenon; rather its existence is reasonably old in India. But in recent times, it expands its branches in almost every level from primary to masters and every field from language to medical science in West Bengal. The existence of private tuition is in leading position in secondary level of education because it is the level where the students appear in public examinations and the results of this examination mark as the eligibility of a student to enter desired academic streams for higher education. In recent times, providing private supplementary coaching becomes attractive profession of unemployed youth. Private tuitions upgraded from an individual paid job to a professional institutionalized system. School teachers, students, and men/women from diverse occupational fields take private tutoring as their moonlighting jobs. It is no less than a shadow of the formal education system in terms of its nature, extent and importance.

This paper is designed to assess the impact of private tuition on the scores of the students along with the regular attendance in the schools in Purulia district, West Bengal. In the coming section we have reviewed the existing literature. Next we discuss our findings following appropriate research methodology.

Literature Review and Objectives of the Study

Biswal (1999) argues that poor teaching quality in schools, low monitoring of schools and conscious efforts to create a market for private coaching are the main causes the widespread existence of private tuition. In developing countries as the teachers are poorly paid, so they force their students to go to their extra classes to increase their income. He considers it as a corruption in the education delivery system. Private tuition is not only confined in developing countries, but also it has strong existence in developed countries like Japan, Canada, South Korea, Cambodia, Egypt and many others country. It maintains or exacerbates already existing differentials resulting from differences in parents educational/economic backgrounds. Kim and Ju-Ho Lee (2002) argued that, in South Korea strict control of government on education system and dissatisfaction of common people with public education system are mainly responsible for uncontrolled private tutoring market. They showed both theoretically and empirically that the formal school education fails to meet the educational demand of the students with high academic ability, high family income, and whose parents are highly educated. So they spend more on private tutoring. The analysis by *Pratichii* (Sen, 2002) reveals that practice of private tuition in primary schools badly affect the students of economically and socially disadvantaged and backward classes because they can't not afford

the cost of private supplementary coaching whereas the students of relatively superior family can afford this cost and thereby widen the gap in educational attainment. This strengthens the inefficiency of the education system at the primary level. Sen(2002) recommends a ban on private tutoring. Analyzing a sample of 269 students studying in Class X in five different schools of Delhi (out of which two are government school and three are private school) Snehi (2010) has shown that 83% of students irrespective of the management of school take private tuition. There are disparities among the students of different schools in term of average expenditure on tuitions. She finds that parents with low family income spend much larger amount on private tuitions as compared to what they pay for government school education. Perceptions regarding the difficulty and importance of the subjects determine the choice of subjects for taking private tuitions. Sujatha (2014) showed that the extent of private tutoring is higher in urban areas compared to rural in India. The study also confirms that the students of private unaided schools are more dependent on private tuition compared to the students of government and private aided schools. Most of the government schools students take private tuition to qualify in public examinations while for most private unaided students take private tuition to score high percentage marks. More boys are attending private tuition compared to girls. Using the 2011 and 2012 waves of the ASER data of rural India Dongre and Tewary (2015), show that private tutoring has a positive and significant effect on learning outcomes of the students of Classes 1 to 8. They also confirm that this effect is stronger for those students who are relatively poor and for those whose parents are not educated much. Using education watch databases of Bangladesh Nath (2006) has shown that proportion of primary school students having private supplementary tutor is increasing in Bangladesh overtime and it is also increasing with increase in level of class. This study showed that urban schools students take significantly more private tuition than rural students and the girls of each grade were significantly less likely to have private tutor than the boys of the same grade. The economically well-off families and the educated parents invested more money on private supplementary tutoring compared to the others. The students having private supplementary tutors are more competent in a particular grade than their counterparts without any private tutor. Collecting the data from fifty students of class IX in Kohat Division of Pakistan Suleman and Hussain. (2014) showed a significant positive effect of private tuition on the academic achievement of students in subject of mathematics. They also found that private tuition is very much effective in increasing the motivational level of the students. Kwo and Bray (2014) showed that in Hong-Kong most of students in Grades IX and XII receive private tutoring for improvement of examination marks. Spending on private tuition is a common phenomenon across the developing countries. It varies cross the income group, castes, schools and regions. But study of the effects of private tuition along with the effects of regularity in schools on academic score of Indian students is rare in literature relating to the economics of education. In a report of State Council of Educational Research and Training (WB) (2009) based on the primary survey of 4782 students from rural and urban areas of West Bengal we find 58 per cent of the students of class IV, VII, IX and XI receive private tuition. It shows that irrespective of the sex achievements of class IX students receiving private tuition are better than the achievement of the students without private tuition. Majumdar and Jos (2011) has documented the details of the structure, cause and consequences of private tuition in India. They find that rich parents send their child in private tuition in addition to schools. However, students belonging to poor family could not avail private tuition. From their observations, they have argued that private tuition reinforce rather than reduce social inequality.

Thus in the existing literature, it is evident that learning in private tuition is instrumental to improve student's academic score across the globe. But the comparison of the effects of

spending private tuition and regularity in classes in schools to improve the academic scores of the students is rare in the literature. No one study has been conducted in West Bengal particularly in Purulia district to explore the impact of private tuition controlling the regularity in classes and to understand the interaction effect of spending for private tuition and regularity in classes.

With this end in view, we set the following objectives. We try to explore the impact of household's expenditure for private tuition on academic result of their children in their last examination. We also assess the role of regular attendances in classes in academic scores of students. Finally, we examine which one is more effective for fulfilling the scoring objective of education system in the context of Purulia district, West Bengal.

Data, Methodology and Variables

We have conducted the study for the secondary level students as we observe the existence of private tuition in leading position in secondary level of education. At this stage the students first time appear in public examinations and the results of which work as the eligibility of the student to enter in higher study or in to formal job market. In order to study the impact of private tuition on academic score of the students we have purposively selected the district of Purulia. Purulia is the Western most district in West Bengal. It is backward in respect of education and literacy. Over all literacy rate of the district is 64.5 per cent (Census, 2011). In this district 38% of total population belongs to Scheduled castes (18.5 %) and scheduled tribe community (19.4 %). This district is basically a rural district where 87.2 % population resides in villages. We have found there are 379 secondary/higher secondary schools in the district. Of them 121 have online information regarding their infrastructure and academic performance (DISE, 2018). There are 20 community development blocks and three municipalities in Purulia district. First, we have randomly selected 10 blocks among the blocks. In the second stage from each selected block two public secondary or higher secondary schools having information in DISE data base have been selected randomly. In third stage from each selected school sixteen students have been selected from the strata on the basis of their caste categories. The number of sample students from each stratum has been allocated using proportionate criteria. We have collected information from 320 students randomly selected from the strata during the months of January 2020. In the process of data tabulation we find incomplete information from a few students. This empirical study has used the primary data collected from 309 students of class X in the session 2019-20. Therefore, our sample is a multi-stage stratified random sample for the secondary students in the districts of Purulia. A multiple linear regression model has been formulated to assess the impact of spending for private tuition on academic scores of the secondly level students in Purulia districts. In our regression model percentage of academic score in final examination of class IX is the dependent variable. It is a quantitative variable expressed in percentage form. To estimate this variable we include the following explanatory variables.

Monthly expenditure for Private tuition: It is the total monthly expenditure of the household for private tuitions fees of the student in class IX. It is a monetary variable measured in rupee. We expect that monthly expenditure for tuition have some positive impact on the academic score of the student.

Regularity in Classes: It is measured as the percentage of attendance of a student in school during the session of class IX. Here we have considered it as a dummy variable. It takes value 1 if the attendance is 80% and above and 0 otherwise. It is expected that high level of regularity help a student to earn high marks.

Father's Education: It is a time variable indicating the years of schooling of the father of the student. It is the control variable in our regression model.

Mother's Education: It is a time variable indicating the years of schooling of the mother of the student. It is also a control variable in our regression model.

Caste: We collect our data from four conventional castes i.e., GEN, OBC SC, and ST. But in regression model we have included two dummies; one for caste SC (SC=1 and 0 otherwise) and another caste ST (ST=1 and 0 otherwise). We have included these caste dummies to understand the variation of academic result across the social strata. Finally, to assess the importance of private tuition for the students from lower social castes, we have incorporated two interaction variables for the caste dummies with the monthly private tuition expenditure of the households.

The regression model has been estimated applying ordinary least squares addressing the problem of multicollinearity, heteroscedasticity and autocorrelation if any.

Empirical Findings and Discussion

This section discusses the findings of our primary survey and estimated results. The study has surveyed 20 government aided secondary schools from Purulia district which is backward in respect of education and other infrastructure. Most of the people in this district live in village. From the selected schools this study collected information from 309 students who have been selected using lottery method. Table-1 deals with the frequency distribution of the categorical variables of the households of our sample students. Our sample comprises 60 per cent female students. This is because of the selection of some exclusive girls schools. We have interviewed students from four strata of social castes. Almost one fourth of our sample students belong to general castes. Among the sample students 28.5 (15.5) per cent are belonging to scheduled castes (scheduled tribe). Most of the sample students are Hindu. With this composition of caste and religion our sample is matching with the caste religion distribution of the population in Purulia district. More than two third of the sample students comes from nuclear households. In our sample 30 per cent students belongs to landless households. Among the sample students 46 per cent has reported that their households don't have ownership of agricultural land. Therefore, incidence of landlessness and poverty are not negligible in the district of Purulia. Mothers of only 13 per cent of the students are in labour force whereas fathers of 98 percent students are participating in labour force. It shows that there is a huge gender gap in labour force participation in the society which is an important feature of patriarchal society. It is not surprising that among our sample students 30 per cent students don't have access to safe drinking water in their home. Still now in Purulia, 4.2 per cent of the sample students at night do their home task in the light of kerosene and one fourth of the student don't have access to improved sanitation facility in their residential premises.

Table 1 Socio-Economic Background of the Sample Students. (N=309)

Category	Frequency	Percent
Gender of the Students (1=Female)	183	59.2
Caste of the Students (1=General Caste)	74	23.9
Caste of the Students (1= Scheduled Caste)	88	28.5
Caste of the Students (1= Scheduled Tribe)	48	15.5
Caste of the Students (1= Other Backward Classes)	99	32
Religion of the Students (1=Hindu)	282	91.3
Student belong to Nuclear Family	224	72.5
Student belong to Agricultural Landless Household	93	30.1
Economic Status of the Students(1=BPL card holder)	144	46.6

Father's Occupation of the Students(Government Service)	34	11
Father's Occupation of the Students(Formal/Informal Business)	73	23.6
Father's Occupation of the Students(Farmer/ Wage labour)	198	64.0
Father's Occupation of the Students(Seeking for Job)	4	1.3
Mother's Occupation of the Students (Government Service)	10	3.2
Mother's Occupation of the Students (Business/informal off-farm employment)	1	0.3
Mother's Occupation of the Students (Farmer/ Wage labour)	28	9.1
Mother's Occupation of the Students (Housewife)	270	87.4
Access to Safe Drinking Water Facility(1=yes)	214	69.3
Access to Electricity(1=Yes)	296	95.8
Access to Improved Sanitation Facility(1=Yes)	229	74.1

Source: Author's Computation based on primary survey (2020)

Table 2 shows the education related variables of the sample students. We see that 59 per cent of the sample households have no separate room in home for study. 63 per cent of the sample students do not get guidance regarding regular study from their household members. 79 per cent of the sample students took paid private tuition for at least one subject during the class IX. However, only 45 percent of the sample students attends the classes in the school in a regular basis (80% and above). The average attendance of the half of the sample students is below 80% but above and equal to 50%. Therefore, to the majority of the students and the parents the regular classes in the schools are not so important. Although more than three quarters of the sample students goes private tuition for improving their learning and scores in examination.

Table 2 School Education Related Trait of the Sample Students (N=309)

Category	Frequency	Percent
Student having a Reading room in home (1=Yes)	126	40.8
Student get guidance from Household members (1=Yes)	114	36.9
Student takes Private Tuition (1=Yes)	243	78.65
Attendance in Classes;80% and above	140	45.3
Attendance in Classes;50% and above but below 80%	152	49.2
Attendance in Classes; below 50%	17	5.5

Source: Author's Computation based on primary survey (2020)

Table 3 Descriptive Statistics of Selected Variables (N=309)

Variables	Min	Max	Mean	Median	Mode	S. D	CV
Percentage of Marks in class IX	28	90	56.27	53	50	13.305	23.64
Distance of School from Home (km)	0.1	10	2.34	2	1	3.824	141.63
Family size	2	16	5	5	4	3.032	60.64
Worker Population Ratio	0	100	40.54	25	25	45.379	111.94
Father's education of the Student	0	17	9.56	10	10	4.225	44.19
Mother's education of the Student	0	17	7.41	8	10	4.13	55.74
Monthly Expenditure for Private Tuition	0	10000	579.55	300	0	888.147	153.25

Source: Author's Computation based on primary survey (2020)

Table 3 shows that majority of the students obtain 53% and above marks in the annual exam of class IX with maximum marks 90% and minimum marks 28%. Though the average distance of school from their home is 2.34 km, majority of the students lie within 2 km of school periphery. The mean value of family size is 5 with maximum size of family 16 and minimum family size 2. The average worker population ratio is 40.54. In most of the family one out of four members earn for livelihood. There is wide dispersion in worker population ratio. The description of Father's education and Mother's shows that fathers compared to mothers are more educated in average. Moreover mother's education relatively more dispersed in contrast to the relative dispersion of father's education. We have found that average monthly expenditure for fees of private tuition for the households is Rs. 580 per month which varies from zero to ten thousand. Majority of the students spend more than Rs. 300 per month for availing private tuition. Therefore, the households in Purulia district spend huge money for private tuition on the belief that it helps their children to earn higher percentage of marks in examination. But question is that is private tuition really good instrument for earning higher score in examination? In order to reply for the question we have estimated the effect of the expenditure for private tuition on scores in last examination for the secondary students in Purulia district. In most of the cases the private tutors incur this money as an unaccounted form. Thus private tuition give birth of an underground economy.

Table 4 presents the effect of expenditure for private tuition and other selected factors on the percentage of marks obtained in class IX for the sample secondary students in Purulia district. The summary statistics of the model confirms that there no problems of multicollinearity, heteroscedasticity and autocorrelation. Therefore, the results of the estimation may be used for hypothesis testing and policy prescription. Our study reveals that the coefficient of regularity in classes is positive and statistically significant at one per cent level. The average score is 5 percentage point higher for the students who attended more than 80% of the classes over the year than other students. The coefficient of the monthly expenditure for private tuition is positive and statistically significant at one per cent level. Other things remaining unchanged, if the household spend 100 rupees more per month for private tuition the average percentage of score increases only by 0.5 percentage points. Therefore, regularity in classes and spending on private tuition accelerate the marks obtained in final examination. But the magnitude of the coefficient of the regularity is ten times of the coefficient of the monthly expenditure for private tuition. It is thus indicative that regular attendance is more important than spending on private tuition to achieve better score in examination. Thus private tuition is not a good instrument in general for improving the scores in examination.

Table 4 Effect of Private Tuition on Score in Final Examination of the Sample Students

Dependent Variable: Percentage of Marks in class IX			Included observations 309				
Method of Estimation	White test for Heteroscedasticity	F	Sig.	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Ordinary Least Squares	chi2(1) = 2.57 (Sig. 0.108)	24.123	0.000	0.392	0.376	10.436	1.800
Coefficients							
Explanatory Variables		B	Std. Error	t	Sig.	Collinearity Statistics	
						Tolerance	VIF
(Constant)		47.660	2.068	23.043	.000		

Regularity in School (1=attendance 80% or above)	5.354	1.264	4.237	.000	.893	1.119
Monthly expenditure for Private Tuition(Rs)	0.005	.001	5.453	.000	.729	1.371
Education Level of Father (years)	0.189	.218	.867	.387	.416	2.401
Education Level of Mother (years)	0.490	.220	2.224	.027	.427	2.340
Caste (1= SC)	-6.339	1.899	-3.338	.001	.484	2.067
Caste (1= ST)	-6.322	2.286	-2.765	.006	.514	1.944
Caste (1= SC)*Monthly expenditure for Private Tuition(Rs)	0.006	.003	2.259	.025	.570	1.755
Caste (1= ST)* Monthly expenditure for Private Tuition(Rs)	-0.003	.004	-.679	.498	.605	1.652

Source: Author's Computation based on primary survey (2020)

The coefficient of the dummies for caste (SC=1) and for caste (ST=1) are negative and statistically significant. The magnitudes of these coefficients are same. It indicates that the average score of last examination for the students belonging to Scheduled castes or Scheduled tribe is 6 percentage lower than that for the upper castes in Purulia district. Therefore, both the SC and ST students fall behind the students belonging to General castes and OBCs in respect of the percentage of score in last final examination. Note that the coefficient of the interaction effect of private tuition expenditure with SC category is positive and statistically significant. Thus if the students belonging to scheduled castes get a chance of private tuition, they can increase the average score in examination. However, the interaction effect for ST students does not appear statistically significant. Therefore, private tuition may help the students who fall behind the average standards scores in the classes or belonging to the lower social castes. Our study has considered the father's education and mother's education as control factors affecting the academic result of their children. Our estimate tells that the coefficient of mother's education is positive and statistically significant at 5 per cent level. The coefficient tells us one year extra mother's education from mean children will obtain 0.5 per cent extra marks. Logic behind the fact is that higher educated mother may guide their children in learning process. However, education of father is immaterial in the determination of the marks in final examination for their children.

Conclusion

Our study concludes that the dependency on private tuition among the secondary students is prominent in the district of Purulia. In an average the attendance of the student in school is not very good. Often students and sometimes teachers remain absent schools due to schedule of private tuition. It certifies the perception of the parents that private tuition is a better tool than classes in schools to achieve higher marks in examination. Our findings prove that this perception is illusory. In practice the spending on private tuition is less effective in general than the regularity in classes in school to obtain higher marks in examination. Therefore, private tuition should be stop in general which may reduce the absentee of the students sometimes of absentee of the teachers in schools. In our state the government has taken steps to ban the practice of private tuition for the public schools teachers. However, the implementations of the steps are far behind the expectation. Therefore, the government and school authorities should be more active to stop the practice of private tuition breaking the illusory perception of the parents regarding the private tuition as tool for obtaining higher marks. However, our study find that in particular for the students belonging to scheduled castes who score lower marks compared to general castes, the private tuition may be helpful for getting higher marks in examination. This finding has some policy implications. The government may arrange private tuition within the school premises for the students from

lower social castes or for the students who obtain lower marks in midterm examinations or in class tests. For this purpose government may take the help of school teachers and local educated persons with some honorarium.

References

- Azam, M. (2016). Private tutoring: evidence from India. *Review of Development Economics*, 20(4), 739-761.
- Biswal, B. P. (1999). Private tutoring and public corruption: A cost-effective education system for developing countries. *The Developing Economies*, 37(2), 222-240.
- Budiene, V. (2006). Private Tutoring: Educating Society or Driving Social Stratification? *Education in a Hidden Marketplace: Monitoring of Private Tutoring*, 7.
- Dongre, A., & Tewary, V. (2015). Impact of private tutoring on learning levels. *Economic and Political Weekly*, 50(41), 71-80.
- Kim, S., & Lee, J. H. (2010). Private tutoring and demand for education in South Korea. *Economic development and cultural change*, 58(2), 259-296.
- Kwo, O., & Bray, M. (2014). Understanding the nexus between mainstream schooling and private supplementary tutoring: Patterns and voices of Hong Kong secondary students. *Asia Pacific Journal of Education*, 34(4), 403-416.
- Majumdar, Manabi and Jos Mooij (2011). *Education and Inequality in India: A Classroom View*. London: Routledge
- Muralidharan, (2019). Reforming the Indian School Education System. in "What the Economy Needs Now" edited by Abhijit Banerjee, Gita Gopinath, Raghuram Rajan, Mihir S. Sharma, Juggernaut Books, 2019, 129-165
- Nath, S. R. (2008). Private supplementary tutoring among primary students in Bangladesh. *Educational Studies*, 34(1), 55-72.
- Qaiser Suleman, Ishtiaq Hussain. (2014). Effects of Private Tuition on the Academic Achievement of Secondary School Students in Subject of Mathematics in Kohat Division, Pakistan. *Journal of Education and Learning*. Vol.8 (1) pp. 29-40.
- Sen, Amartya (2002). 'Introduction', *The Pratiche Education Report I*, New Delhi: TLM Books.
- Singh, S. (2019). Weaving together two parallel worlds of education-Private tuitions and Schools. Available at SSRN 3401503.
- Snehi, Neeru (2010) Private Tuition and Its Implications on Quality Secondary Education *Journal of Indian Education* May, 2010 Volume XXXVI Number 1
- State Council of Educational Research and Training (West Bengal) (2009). *Implications of Private Tuition in West Bengal: A Report*. Kolkata: Government of West Bengal.
- Sujatha, K. (2014). Private tuition in India: trends and issues. *Revue internationale d'éducation de Sèvres* [Enligne], Colloque : L'éducation en Asie en 2014 : Quels enjeux mondiaux ?, URL : <http://ries.revues.org/3913>
- Suleman, Q., & Hussain, I. (2014). Effects of private tuition on the academic achievement of secondary school students in subject of mathematics in Kohat division, Pakistan. *Journal of Education and Learning*, 8(1), 29-40.