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A Study on the Dropout Problem of Primary Education in Uttar Dinajpur, West Bengal, India

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A STUDY ON THE DROPOUT PROBLEM OF PRIMARY EDUCATION IN UTTAR DINAJPUR DISTRICT, WEST BENGAL
MAJOR HURDLE IN ACHIEVING RIGHT TO FREE & COMPULSORY EDUCATION

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I. Introduction

The Right to Education Act came into effect on 1st April 2010 which ensures free and compulsory education to every child between the ages 6-14 years. "Free education" means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges. On the other hand, "Compulsory education" casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age groups. India is currently having 8.1 million eligible students who are either dropouts or have never gone to school. Therefore, bringing them back to school can be considered as one of the major challenges in implementing Right to Education (RTE).

The target of RTE actually follows from a global set target, namely Millennium Development Goals, which states that every child must achieve primary education by 2015. The 1990 world conference on "Education for All" was held in Thailand, where few global goals were set, including achievement of universal primary education by 2000. Again in 2000, the World Education Forum in Senegal reaffirmed and extended the Thailand commitment. Universal Primary educations along with gender parity were reaffirmed again in the Millennium Summit at New York. However the world cannot reach its goal unless all the nations proceed forward. This clarifies the prioritization and relevance of the Right to Education Act in India.

According to India's "Education for All Middle Decade Assessment", primary school enrolment has increased by 13.7% in between 2001-2005, which reaches close to universal enrolment in Grade I. Despite this success, 1 out of 4 children left school before reaching Grade V and almost half before reaching Grade VIII in 2005. Thus Drop-Out seems to be the major hurdles in the pace of achieving RTE.

Jayachandran (2007) has shown that there is a common tendency to show inflated enrolment rates through official statistics mainly to project a successful trend, but that ultimately leads to magnifying dropout rates. Therefore we can say that the Official Statistics of Ministry of Human Development & Resources (1997-98) always project an exaggerated number. On the other hand NSS Data depends upon household sample

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survey, which believes to reflect the true trend. But calculation of dropout rate through 52 –Round NSS data projects a much lower trend for dropout. Surprisingly in both the cases, West Bengal captures the second highest position in the dropout statistics. According to official statistics (MHRD, 97-98) the dropout rate in West Bengal is as high as 35.8% while calculation from NSS 52 Round data shows it is 11.5%.

Uttar Dinajpur is the lowest ranking district in the state in achieving literacy rate and highest ranking state in dropout. The greatest challenge in achieving RTE in the district is to reduce its 34.75% dropout rate in primary education(Cohort Study, 2005) as well as enroll 13,477 out of school eligible children in the age group between 6 to 9years (HHS2010) and 16,140 out of school children in the age group between 10 to 14 years (HHS, 2010) .

The major objective of this paper is to shed some light on the issues of dropout in primary education as a specific case study on the district of Uttar Dinajpur. There are some general perceptions regarding the causes of dropout while policy prescription requires some area specific target doctrine. The socio-economic factors often remain a non quantifiable entity and exercise of econometrics fails to capture the impact of those invisible issues. But unless those problems remains identified the target of RTE would remain a delusion. I intend within my limited scope of analysis to provide some insight in those issues.

II.   Rationale of RTE

In this Liberalized –Privatized – Globalize regime where everyone is talking about individual freedom and choice, imposition of a right raises much questions and queries. Education was long being considered as investment good, which raises stock of human capital (Becker, 1962 & Schultz, 1962). Therefore the return to education should play the key role in attracting the choice of the individual as he himself would be the beneficiary of that good.

Tilak (2002) using NCAER data on Human Development in rural India demonstrated that household expenditure at least on primary education is not restricted to the upper socio

economic classes. There was no strong evidence of financial constraints rationing access to primary education.

In another study, Duraisamy and Duriasamy (2005) using NSSO survey have shown variations in rates of return of education across various states. In most of the cases an inverted U-pattern was found with low returns (2-10%) to primary education and higher returns (12-24%) to secondary and higher education. Despite generating lower rates of returns, primary education believes to exert largest positive externalities. It not only raises a nation's GDP but also helps to control many socio-economic vices of the economy like, poverty, gender discrimination, infant mortality, child labour, income inequality. All these justify why a strong government intervention like RTE is required to make the primary education mandatory and free of cost.

III.   Reasons of Dropout in Primary Education

Dropout has been defined as the proportion of children that cease to remain enrolled in the schooling system. The reasons of dropouts have been investigated by various social analysts across the world, as dropout problem has turned out to be a global concern.

According to Weber (1989) & Rumberger (2001), the reasons for discontinuing school can be classified into three broad categories (i) Family Related Reasons, (ii) School Related Reasons, (iii) Personal Reasons. Family Related Reasons involve Socio-Economic Status, Disadvantaged Groups, Parental Education and Single Parent Families. School Related Reasons include attendance, grades, academic achievement, interest in school and school work. Personal Reasons consist of Disciplinary Problems, Other extenuating circumstances like marriage etc.

Jayachandran (2007) has analyzed NSS 52 Round data and found (i) Child not interested in studies (37.2%), (ii) Unable to cope (16.4%), (iii) Parents not interested (12.5%), (iv) Financial Constraint (11.2%) are the principal reasons for dropout of the children between the age group 5-14 years in rural area. The other minor reasons are participation in other economic activities (6.1%), attending domestic duties (3.7%), work for wages and salaries (2.5%).

In a study of District Primary Education Programme (DPEP), Ramachandran and Saihjee (2002) has shown that general household characteristics, like income, caste, and occupation and education level of parents continue to determine school access and completion of education in primary education.

Choudhury (2006) has examined few explanatory variables associated with dropouts and his results reflect that "Cared for doing well in studies" is the most important predictor associated with dropout. Choudhury (2006) has shown that compared to those with an interest in studies, those who did not have interest were 7.7 times more likely to dropout. Therefore students' own attitude towards education can only control his dropout from the school.

IV.   Dropout Scenario in Uttar Dinajpur: A Block Level Analysis

Uttar Dinajpur shows the highest rate of dropout and out of school children in the state both in primary and secondary education. Cohort Study (2005-06) has shown 34.75% average drop out in primary education the district where Chopra Block shows the highest rate of dropout (63.43%) followed by Goalpokher-II(53.22%) and GoalpokherI (44.13%). The primary class-wise dropout reflects that in Standard I the dropout is maximum (21.35%) followed by that in Standard II (8.48%), Standard III (4.51%), Standard IV (0.41%). Therefore it can be inferred that as students get habituated with the learning atmosphere of the primary school his own interest towards studies develops and his tendency of dropping out from the school gradually diminishes.

In Uttar Dinajpur, the dropout rates in the disadvantaged sections like SC (25.81%), and ST (12.35%) are lower compared to General Categories (62.45%) which at a time reflect two possibilities. Firstly motivational force to have a secured employment due to reservation system is much higher for these reserved categories which itself acts as a factor of inspiration for continuing education. Therefore dropout rate is comparatively less for reserved categories. Again among General dropout higher dropout is also for the Muslim Minorities, who prefer to go to religious Maktab instead of attending any formal education from school/ madrash.

Table1: Gender Wise Dropout Rate in Uttar Dinajpur District

BLOCK	BOYS	GIRLS	TOTAL
CHOPRA	63.52	63.33	63.43
ISLAMPUR	37.05	37.84	37.40
GOALPOKHER-I	44.38	43.83	44.13
GOALPOKHER-II	53.41	52.99	53.22
KARANDIGHI	20.63	20.56	20.60
RAIGANJ	16.95	15.81	16.41
KALIYAGANJ	22.46	22.28	22.37
HEMTABAD	16.90	13.90	15.50
ITAHAR	29.25	28.67	28.97

Source: School Efficiency Study (Based on Cohort Method) SSM, Raiganj, 2005-2006

Gender-wise variations in dropout do not reveal any conclusive result regarding dropout across the blocks of Uttar Dinajpur. Regarding dropout no substantial gender can be measured from the Cohort Study Report (2005-2006).

Sarba Shiksha Mission, Uttar Dinajpur (2010) has identified few Block specific major issues associated with the dropout which is illustrated in the following table:

Table 2: Block Specific Issues Related with Dropout Rate in Uttar Dinajpur

Block	Issues related with Dropout
Chopra	• Poor Attendance & dropout of girls working in the tea garden • Due to engagement of both parents in occupation elder children get occupied with sibling care
Goalpokher-I	• Multilingual problem faced by Urdu speaking persons • Potential learners engaged in Religions Maktab are treated as OOSC • Seasonal Migration • Mat Making in Lodhan GP keep the girls

	engaged
Goalpokher-II	**Same as Above**
Islampur	• Seasonal Migration • Sibling care by the children due to engagement of both the parents • Child Labour problem due to economic compulsion
Karandighi	• Child Labour in Bidi Binding industry • Linguistic problem in ST dominated area • Lack of interest among parents • Poverty
Raiganj & Hemtabad	• Child Labour Problem (Boys are working at dhabas, tea stalls, Brick-manufacturing centre while girls are working as maid servant.) • Migration
Kaliyaganj	• SC/ST dominated area • Border areas accentuate problems like women-trafficking which may degrade the academic ambience in those habitations of the border area.
Itahar	• Economic compulsion on the children due to poverty • Seasonal Migration • Lack of Interest among children and parents

Source: Proposed Annual Work Plan & Budget 2010-2011 on Uttar Dinajpur, SSM U/D, 2010

The disaggregated analysis done by SSM, Uttar Dinajpur, has helped to compare the area-specific problems associated with large number of dropout in Uttar Dinajpur. The dropout problem in the district can be attributed to (1) Infrastructure Related Issues; (2) Socio Economic Issues and (3) Gender Specific Issues. We are about to choose few

factors form the above classification and try to analyze their level of impact on dropout rates of the primary students in Uttar Dinajpur.

We have chosen (i) PTR (Pupil Teacher Ratio), (ii) SCR (Students Classroom Ratio), (iii) REPTR (Percentage of Repeaters), from the Infrastructure Related Issues. From Socio-Economic Issues, the chosen factors are (iv) Percentage of SC, (ii) Percentage of ST, (iii) Percentage of Muslim Minorities. These factors represent socially and economically oppressed classes who are denied from different social opportunities for a long period of time historically. From Gender Specific Issues actually we could not avail any ready data matrix and therefore we use Gender Parity Index as an explanatory variable from the gender specific issues.

V.   Dropout Modeling: Econometric Exercise

Our basic objective in this section is to propose a linear simplified model for estimating dropout. The chosen indicators, as mentioned earlier, have different degrees of influence on the predictor variable,i.e., dropout. Our purpose is to find out the significant explanatory variables from the data variations and also state the reasons of the insignificance for the other variables.

I intend to start my analysis by explaining my hypothesis regarding the selected chosen factors. In other words I try to justify the reasons behind choosing the following factors:

(i)   Pupil Teacher Ratio (PTR): Pupil Teacher Ratio is considered to be an important indicator for quality education, which helps to reduce the dropout and enhance quality parameter of education. Against the national norm of 40 pupil teacher ratio, the district average PTR is 68.28 in 2009-2010.

(ii)   Students Classroom Ratio (SCR): Infrastructural development is considered to be a pre-requisite condition for assuring quality education. Students' class room ratio should be 30:1 according to the desired norm, but the district average SCR lies at 42.45 for primary education.

(iii)   Percentage of Repeaters (REPTR): Repeaters continue to remain in the same system till they dropout or successfully complete their primary education.

Large number of repeaters in a school always indicates large number of potential dropout of the school. However, if remedial classes are strong it can even reverse the situation. Then there is a possibility to get an inverse relation between percentage of repeaters and dropout. Kaliyaganj -I shows the highest numbers of repeaters followed by Kaliyaganj II, Hemtabad and Raiganj East. The dropout rate in all the above places are much lower than the average rate.

(iv)   Percentage of SC & ST students (SC, ST): SC and ST students represent the disadvantaged sections of the economy. Therefore, higher the ratio of SC and ST in the school higher it is expected would be the dropout rate of the school.

(v)   Percentage of Muslim Minorities (MUSL): Muslim Minorities also plays a strong role in raising dropout in many part of our country. Minorities prefer religious Maktab teaching which raises the out of school or dropout of the students. But whether our data variation would confirm that relation is a matter of query.

(vi)   Gender Parity Index (GPI): Girls contribute a large proportion of dropout in our country which is mainly due to non-availability of separate schools for girls and also women teachers. Thus Gender Parity Index may exert a strong influence in controlling dropout

On the basis of the general understanding of the probable reasons of dropout subject to availability of limited data-source, our proposed linear model is :

DRP = Const + β_1 (PTR) + $\beta2$. (SCR) +   3. (REPTR) +   4. (SC) +   5.(ST) +   6. (MUSL) +   7. (GPI)

DPR = Dropout Rate (dependent Variable),   i = Coefficients of explanatory variables

On the basis of the CLRC level cross-sectional data (2005-2006 Cohort- Study Report) the dropout rate is regressed on the selected explanatory variables using OLS method. The F statistic, found from the econometric analysis, is highly significant which implies that the proposed model is perfectly fit. Adjusted R squared is .57; therefore the explanatory power of the model is also good. We have corrected the heteroscedasticity using the Robust Covariance Matrix.

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| Ordinary     least squares regression    Weighting variable = none
|
| Dep. var. = DRP       Mean=    30.33666667    , S.D.=   15.44438938
|
| Model size: Observations =      21, Parameters =   8, Deg.Fr.=    13
|
| Residuals:  Sum of squares= 1337.199804    , Std.Dev.=      10.14207
|
| Fit:       R-squared=  .719699, Adjusted R-squared =       .56877
|
| Model test: F[  7,    13] =    4.77,    Prob value =       .00750
|
| |
| Results Corrected for heteroskedasticity (Robust Covariance Matrix
  used to correct heteroskedasticity)
|
| Breusch - Pagan chi-squared =     4.5887, with   7 degrees of freedom
|
+--------------------------------------------------------------------
-+
+---------+-------------+---------------+--------+---------+---------
-+
|Variable |Coefficient  | Standard Error |t-ratio |P[|T|>t]  Mean of X|
+---------+-------------+---------------+--------+---------+---------

 Constant -504.3270948      138.10300       -3.652   .0029
 PTR       .2003866386E-02  .40247419E-02     .498   .6269 -82.805238
 SCR       1.823601980      .41110506        4.436   .0007  39.982857
 REPTR    -.4485903943E-01  .71809629E-01    -.625   .5430  49.992381
 SC        34.71034651      8.9912100        3.860   .0020  19.974762
 ST        1.392159068      2.4204711         .575   .5750  3.6595238
 MUSL     -.8207046398      .27261085       -3.011   .0100  31.047619
 GPI      -214.1909071      142.08548       -1.507   .1556   .97476190

DPR = -504.33 + 0.2 PTR + 1.8 SCR - 0.45 REPTR + 34.71 SC + 1.39 ST -
0.82 MUSL - 214. 19 GPI
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From the regression-result it is found that PTR (Pupil Teacher Ratio), SCR (Students Classroom Ratio), SC (Percentage of SC students), ST (Percentage of ST students) have positive influence on DRP (Dropout rate). On the other hand, REPTR (Percentage of Repeaters), MUSL (Muslim community members), GPI (Gender Parity Index) can help to control dropout.

As a matter of fact, percentage of repeaters and muslim minority students helping to reduce the dropout is also a matter of surprise, but one has to be very cautious in

interpreting the result. If repeaters are given proper remedial measure the tendency to dropout can be controlled. Hence, negative relation between rate of dropout and percentage of repeaters can be justified. On the other hand, most of the muslim community students go to their religious Maktab, but who come to formal-school ignoring their religious invitation to Maktab, want to stick to either Madrasa/other formal education system.

The available data variations have made few explanatory variables, like SCR, SC and MUSL as significant variables at 99% level of significance, while data variations do not confirm level of significance for the explanatory factors like, PTR, REPTR, ST and GPI. The reasons can be explained within our limited scope of analysis.

High PTR is a reflection of poor class environment which is nonconductive for good learning. But high dropout also reduces the PTR, as the number of students fall. Therefore, in aggregate sense it fails to explain its level of significance as an explanatory variable.

Repeaters are those whose performances are non-satisfactory to get promotion. If adequate care is being taken then their performance may be improved which may act as a controlling parameter of dropout rate. But at the same time repeaters may get frustrated and may turn to be a dropout. Thus the twin plausible impacts of repeaters make it a weak explanatory factor.

Percentage of ST students is found to be an insignificant factor to explain dropout in this district. It is perhaps because of the reason that the numbers of enrolled ST students are relatively low compared to SC students and the expected rate of getting future employment is also higher due to lower level of competitions amongst them. Therefore the students who get enrolled try to complete their education. This could be the reason why percentage of ST students doesn't significantly explain the overall dropout rate in this district.

Gender Parity Index usually reduces the dropout rate. Our data variations also witnesses that. However, GPI fails to project itself as a significant explanatory variable for the dropout rate.

Therefore, our study reveals Students Classroom Ratio (SCR), Percentage of SC Students(SC) and Percentage of Muslim Students (MUSL) as significant explanatory

factors for predicting the dependent variable Dropout rate. However, 57 percent of the model can only be explained by these factors. There may be few vital factors like migration, work participation rate by the child labour, percentage of Muslim students being taught in Maktab, work involvement rate by both the parents, which remain outside the scope of analysis of this study due to lack of proper data availability. Inclusion of those relevant variables overcoming the problem of data availability could make this model better one. This calls for a greater probing of data and more in-depth analysis, which I intend to take up in a later exercise.

VI.   Conclusion

Dropout problem is a glaring concern in the arena of primary education of the Uttar Dinajpur district, West Bengal. Therefore revisions and reorientation of policies are required to control the situations. Students- Class Room ratio needs to be reduced which in turn raise the quality of education and thus the problem of dropout can be taken care of. The disadvantaged sections like Scheduled Caste students are more prone to dropout and therefore the remedial measures for the disadvantaged sections needs to be strengthened. Their apathy towards education should be removed by providing motivational learning. A new break through is required in Teaching –Learning Method. Process of learning should be more joyful and attractive. Being habitat of SC dominated areas they may not be able to reap the benefit of reservation policy in large extent or may face much competition. This may act as a demoralizing factor in taking up education.

On the other hand, percentage increases in Muslim minority students are expected to reduce dropout rate significantly. So much social transformation needs to be started to bring a positive change in the society. The Maktab learning should be substituted by formal school/ Madrash learning. Otherwise, Right to Education would be left as a coercive method in bringing those students under the school roof. Unless an overall

awareness would start the objective of Right to Free & Compulsory Education would remain as pipedream.

References:

Becker G (1962): Investment in Human Capital, Journal of Political Economy, 70, S9-S49;

Bruns Barbara et al. (2003): Achieving Universal Primary Education by 2015, A Chance for Every Child, The World Bank, Washington D C

Chatterji Monojit (2008): Education and economic Development in India, Dundee Discussion Papers in Economics, Department of Economic Studies, University of Dundee

Choudhury Amit (2006): Retrieving Dropouts: Old Issues, Fresh Perspective, Economic and Political Weekly, Dec 23, 2006;

Duraisamy P and Duraisamy H (2005) : Regional Differences in Wage Premia and returns to Education by Gender in India, Indian Journal of Labour Economics, 48(2), pp 335-347;

Indian Institute of Education (2006): A Study on the Extent & Causes of Dropouts in Primary School in Rural Maharashtra with special reference to girl dropout rate, Planning Commissions, Government of India

Jayachandran Usha (2007): How High Are Dropout Rates in India, Economic and Political Weekly, March 17, 2007;

Kulkarni Pallavi (2010): RTE Act faces financial hurdles, Education Master, www.eduactionmaster.org;

MHRD (1997-98): VI All India Educational Survey, NCERT, State Directorate of education

NSS–52 Round (1995-96): National Sample Survey Organization, Department of Statistics, Govt. of India, New Delhi

Pradhan & Subramanian (2000): Education , Openness and Poor, Discussion Paper 14, NCEAR, New Delhi

Ramachandran & Saihjee (2002): The New Segregation : Reflection on Gender and Equity in Primary Education, Economic and Political Weekly, 37 (7), April 27, pp 1600-13

Rumberger (2001): Why Students Dropout of School And What can be done, paper presented at a conference in Harvard University;

Rumberger R (1983): Dropping out of High School: The Influence of Race, Sex and Family Background, American Educational Research Journal;

Schultz, T. W. (1962): Reflection on Investment in Man, Journal of Political Economy, 70, pp S2-S3;

SSM, Uttar Dinajpur (2005-06): School Efficiency Study (Based on Cohort Method), SSM, Raiganj;

SSM, Uttar Dinajpur (2010): Household Survey (unpublished), SSM, Uttar Dinajpur

SSM, Uttar Dinajpur (2010): Proposed Annual Work Plan & Budget 2010-11 on Uttar Dinajpur, SSA, KGBV & NPEGL

Tilak J B G (2002): Education, Poverty in India, Review of Development and Change, 7 (1), (Jan-Jun), 1-4

Tilak J B G (2005): Post Elementary Education, Poverty and Development in India, Working Paper Series No. 6, Centre for African Studies, University of Edinburgh

Tilak JBG (2002): Household Expenditure on Elementary Education in Rural India: A Few Stylised Fact, Indian Journal of Social Development, 2(2), pp 231-267;

Weber (1989) : Identifying Potential Dropouts : A Compilation and Evaluation of Selected Procedure, Centre on Education and Training for Employment, Columbus, Ohio;