

Realizing Sarva Shiksha Mission through Students' performance of Hooghly district of West Bengal

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Abstract

To identify the effects, we use structured schedule containing twenty five (25) independent variables viz. Age (X_1), Calorie intake value (X_2), Food intake value (X_3), Body mass index (X_4), Mother Education (X_5), Use of teaching learning material at school (X_6), Communication to School (X_7), Communication to reaching school (X_8), Attitude of teachers on student (X_9), Adequate Dress during school hour (X_{10}), Role of School teachers in understanding text books (X_{11}), Role of parents in understanding text books (X_{12}), Access to text (X_{13}), Availability of text book (X_{14}), Home environment (X_{15}), Financial Condition (X_{16}), Encouragement by the social leaders toward education (X_{17}), Encouragement by mother toward Education (X_{18}), Encouragement by the siblings towards Education (X_{19}), Role of mother in understanding text book (X_{20}), Assistance of mother during study (X_{21}), Mother level of income (X_{22}), Mother's commitment towards continuing education (X_{23}), Attitude of mother towards children (X_{24}), and engagement in essential household activities (X_{25}) Correlated with the depended variable (Y). The study indicates that almost all variables showed their strong contribution in finding the role of elementary school students towards the level of their performance through Sarva Shiksha Mission of Hooghly district of the state of West Bengal. The findings are: (i) Age (X_1), Mother Education (X_5), Role of School teacher in understanding text books (X_{11}), Role of parents in understanding text books (X_{12}), Home environment (X_{15}), Mother's commitment towards continuing education (X_{23}) and Attitude of mother towards children (X_{24}) had significant bearing on performance of student's (ii) the only variable Age of respondent (X_1) has been found to exercise significant regressional effect on the Students' performance.

Keywords: SSM, Regressional effect, BMI, etc.

Introduction

Students' achievement in education plays a vital role in all round development of a child and is often associated with the future economic power and competitiveness of a country. Competition seems to be a central focus in our society today. No matter where one goes or what one does, one's age or occupation, there seems to be an emphasis on competition. The world of education is no exception. There is competition at every level and in every phase of education today from high school students competing to get into the best colleges, to teachers competing for merit pay, and to schools

competing on standardized achievement tests. Pressure on educators to compete comes from many levels. Pressure on educators to compete can also come from parents, colleagues, and administrators, as well as from various local, state, and federal institutions. The overwhelming message to teachers throughout the country is to "get the scores up." In addition, there is pressure on educators to establish a good reputation for their schools within the community. At interschool athletic events, in grocery stores, and wherever parents meet, they discuss and compare schools: which has more computers, which has the best programs, and most of all, which schools rank highest on the standardized achievement tests. In the study of Yeasmin (2016), he found that in this context, an attempt has been made in the present article to look at the progress made with regard to different components of mathematics of the students who have completed elementary education and whether there is a gender gap in that achievement.¹

According to Chatterji, this study sought to broaden definitions of educational quality at the primary level in more comprehensive and child-centered terms, taking into account local and regional context factors (namely, historical, governance, economic, cultural religious, community, and family-based variables). The method employed is a policy theory analysis, based on a literature review relevant to a regional case study focusing on the state of West Bengal, India. The paper uses the case analysis to (a) suggest revised indicators of educational quality, (b) derive a context-based logic model, and (c) recommend two-tiered monitoring strategies that support program development at the community level while meeting macro-level information needs.²

Kumar and Chand (2015) conducted a study on the objective of this paper was to study the enrolment of boys and girls students, enrolment of general, SC, ST and OBC category students, number of government schools and number of teachers, and student teacher ratio at the elementary level of Hamirpur District under the Sarva Shiksha Abhiyan. From this paper it may be concluded that the district has first position in literacy rate in the Himachal Pradesh. Overall enrolment percentage share of girls has remained static over the period of 2003 to 2009 in primary schools and upper primary schools, where as the overall enrolment percentage share of boys also showed the declining trend from 2003 to 2009 in primary schools, however showed increasing trend in upper primary schools under the scheme of SSA. The enrolment of general students has decreased in 2009 than 2003 in primary as well as upper primary schools. The overall percentage enrolment share of SC, ST and OBC students has increased from 2003 to 2009 in primary and upper primary schools. The number of government primary schools as well as upper primary school has shown declining trend from the period 2004 to 2009. However teacher strength also showed the declining trend from 2004 to 2009 and increased trend in student-teacher ratio in the district. Regular decrease in number of students in government elementary schools may be because of increase in strengthen of students to send their children to private schools and insufficient teaching staff in these schools.³

¹ Students' achievements in different components of mathematics after completing elementary education

² http://www.caluniv.ac.in/academic/education_journal/6%20Education%20for%20All%20in%20West%20Bengal,%20India%20Towards%20Context%20Relevant%20Quality%20Indicators%20and%20Evaluation.pdf

³ A Case Study of Sarva Shiksha Abhiyan in Hamirpur District Of Himachal Pradesh

Deb and Ghosh (2015) conducted a study in Jalpaiguri, a Sarva Shiksha Mission (SSM) district of West Bengal to evaluate and assess the reasons behind Dropout Children. To identify the effects, we use structured schedule containing sixteen independent variables viz. Age of Father (X_1), Age of Mother (X_2), Father's Education (X_3), Mother's Education (X_4), Father's Occupation (X_5), Mother's Occupation (X_6), Family Size (X_7), Monthly Family Income (X_8), Home Environment (X_9), Climatic Factor (X_{10}), Monthly Expenditure on Education (X_{11}), Attitude towards Education (X_{12}), Financial Condition (X_{13}), Social Interaction (X_{14}), Role of forest/tea garden in controlling financial hardship (X_{15}) and Use of Mass media (X_{16}) against dependent variable Reasons behind the Dropout (Y).⁴

Sahai (2014) found that, the major drawback found in this scheme is spending teaching time; insufficient basic infrastructure of school. Parents, Panchayats and local authorities are negligible in this scheme. Such place, access to MDMs for Dalit children is hampered by the fact that the meals are served primarily in dominant caste hamlets. There are also instance of discrimination. Recently the death of 23 children due to poisonous food served to them under MDMs has put a question mark on this scheme. Hence, to better implementation of this scheme it would be necessary to take measures. For effective implementation of MDMs, all the functionaries involved in the scheme, need to be aware about nutrition, health hygiene and safety of foods. Non-governmental organization, local youth and active social workers can also play a significant role in this scheme. Hence, quality of education and time span of teaching should not suffer any cost. Adequate staff does not mean the provision of just one cook. It is required is smoothing similar to the Gujarat or Karnataka model where three persons are employed for the provision of the MDM, an organizer, a cook and a helper.⁵

Objective of the study

1. To examine the current status of education of elementary school level in two blocks of Hooghly district of the State of West Bengal.
2. To examine the awareness and the extent of utilization of facilities at various levels of students and the extent of utilization of such facilities.
3. To know the experiences and perceptions of students, community and those who have discontinued their studies in relation to their socio-economic background and compare this with the experiences of other across socio-economic category.
4. To find the elementary school students towards the level of their performance through Sarva Shiksha Mission (Y) from different educational, social, economic, environmental and academic variables viz. Age (X_1), Calorie intake value (X_2), Food intake value (X_3), Body mass index (X_4), Mother Education (X_5), Use of teaching learning material at school (X_6), Communication to School (X_7), Communication to reaching school (X_8), Attitude of teacher on student (X_9), Adequate Dress during school hour (X_{10}), Role of School teacher in understanding text books (X_{11}), Role of parents in understanding text books (X_{12}), Access to text (X_{13}), Availability of text book (X_{14}), Home environment (X_{15}), Financial Condition (X_{16}), Encouragement by the social leaders toward education (X_{17}), Encouragement by mother toward Education (X_{18}), Encouragement by the siblings towards Education (X_{19}), Role of mother in understanding text book (X_{20}), Assistance of mother during study (X_{21}), Mother

⁴ Reasons behind the dropout children in Dooars area of Jalpaiguri district of West Bengal

⁵ Mid-Day Meal Scheme : Achievements and Challenges

level of income (X_{22}), Mother's commitment towards continuing education (X_{23}), Attitude of mother towards children (X_{24}), and Engagement in essential household activities (X_{25})

Methodology

The present study is based on intensive house hold survey conducted during March, 2016 – July, 2016 in two blocks of the district of Hooghly of the State of West Bengal. The blocks namely, Chanditala-I and Mogra-Chinsurah was selected at random, out of 31 blocks in the district. With the help of random sampling method, 200 students of elementary school level were selected. A structure schedule containing 53 different questions / statements / views were placed before each respondent student separately to measure educational activity, health status, etc. Here, in order to explore the problem, different statistical methods like correlation, regression, and step down regression have been adopted. The term body mass index (BMI), is a measure of relative weight based on an individual's mass and height. The BMI is used in a wide variety of contexts as a simple method to assess how much an individual's body weight departs from what is normal or desirable for a person of his or her height. BMI is used differently for children. It is calculated the same way as for adults, but then compared to typical values for other children of the same age. Therefore, B.M.I. = Mass (in Kg) / height² (in m²).

Result and Discussion

Table1: Coefficient of correlation between performance of elementary school children through Sarva Shiksha Mission (Y) with other Twenty five (25) casual factors.

Sl. No.	Variable	'r' value
1	Age (X_1)	0.1835**
2	Calorie intake value (X_2)	0.0370
3	Food intake value (X_3)	0.1110
4	Body mass index (X_4)	-0.0636
5	Mother Education (X_5)	0.1791*
6	Use of teaching learning material at school (X_6)	0.0021
7	Communication to School (X_7)	0.1186
8	Communication to reaching school (X_8)	-0.0534
9	Attitude of teacher on student (X_9)	0.0116
10	Adequate Dress during school hour (X_{10})	0.0074
11	Role of School teacher in understanding text books (X_{11})	-0.3560**
12	Role of parents in understanding text books (X_{12})	-0.3685**
13	Access to text (X_{13})	0.0828
14	Availability of text book (X_{14})	0.0781
15	Home environment (X_{15})	0.1805*
16	Financial Condition (X_{16})	0.1393
17	Encouragement by the social leaders toward education (X_{17})	-0.0261
18	Encouragement by mother toward Education (X_{18})	-0.0607
19	Encouragement by the siblings towards Education (X_{19})	0.0424
20	Role of mother in understanding text book(X_{20})	-0.1300

21	Assistance of mother during study (X ₂₁)	0.0903
22	Mother level of income (X ₂₂)	-0.0333
23	Mother's commitment towards continuing education (X₂₃)	
	0.1667*	
24	Attitude of mother towards children (X₂₄)	0.1764*
25	Engagement in essential household activities (X ₂₅)	-0.0207

Critical value (2-Tail, 0.05) = +or- 0.140

*Significant at 5% level

Critical value (2-Tail, 0.01) = +or- 0.183

** Significant at 1% level

Table 1 presents the correlation studies between the dependent variable i.e. performance of elementary school students through Sarva Shiksha Mission (Y) and other Twenty five (25) casual factors viz. Age (X₁), Calorie intake value (X₂), Food intake value (X₃), Body mass index (X₄), Mother Education (X₅), Use of teaching learning material at school (X₆), Communication to School (X₇), Communication to reaching school (X₈), Attitude of teacher on student (X₉), Adequate Dress during school hour (X₁₀), Role of School teacher in understanding text books (X₁₁), Role of parents in understanding text books (X₁₂), Access to text (X₁₃), Availability of text book (X₁₄), Home environment (X₁₅), Financial Condition (X₁₆), Encouragement by the social leaders toward education (X₁₇), Encouragement by mother toward Education (X₁₈), Encouragement by the siblings towards Education (X₁₉), Role of mother in understanding text book(X₂₀), Assistance of mother during study (X₂₁), Mother level of income (X₂₂), Mother's commitment towards continuing education (X₂₃), Attitude of mother towards children (X₂₄), and Engagement in essential household activities (X₂₅) had wielded a substantial influence on the dependent variable that is, the role of elementary school students towards the level of their performance through Sarva Shiksha Mission.

The age of the children (X₁) in the blocks like Chanditala-I and Mogra- Chinsurah of the district of Hooghly region has an exceptional significance on SSM from their study. Lower the age, higher is the chances of dropout. Thus, the rate of dropout at lower classes is higher than the higher classes.

Mother's Education plays a key role in the family. It is the mother in the parental family (most of time) who ultimately decides the educational future of his children. Higher education of mother imparts better congenial educational environment in home which helps the children for their educational growth. It reduces the chances of dropout and increases the level of retentivity. Higher education of mother means that children may get the educational support from home in understanding text books. So the variable Mother's Education (X₅) has the positive significance on the dependent variable.

Role of school teacher in understanding text book(X₁₁) is very crucial as teachers would play the role of guide and philosopher before the students. Here, the critical coefficient value is negative which indicates that teachers are not performing their adequate role in the overall understanding of their students. Student's performance will reach the optimum level if the teacher's support and commitment towards students is best possible.



In these region where the male and female literacy is marginal, there the role of parents in understanding text books(X_{12}) plays a prominent responsibility. As the parents of the child is the key person of the family in terms of earning, hence the child did not get support from home in understanding text books and the role of parents had shown the negative impact on the SSM.

Other than school hours, a child spends most of the time in home. So, adequate home environment makes children to be a good learner. Here, home environment (X_{15}) has had a positive bearing on SSM.

Other than school hours, a child spends most of the time in home. So mother is the only person who is in contact most of the time with her children. Hence, the role of mother is encouraging her children in continuing education(X_{23}) had shown the positive impact on the SSM.

Mothers play an important role in their family. Fathers are generally busy with his works to earn bread and butter for his family. So, mother is the only person who is in contact most of the time with her children. Hence, the attitude of mother towards children (X_{24}) of her children has the positive significance on the dependent variable.

The correlation as found significant for certain variables did suggest that they had wielded substantive influences on role of elementary school students towards the level of their performance through Sarva Shiksha Mission while making interaction with other variables concurrently.

Table II: Multiple Regression Analysis

Variables	'B' Value	'r' value
Age (X_1)	0.104174	1.477
Calorie intake value (X_2)	-0.012027	-1.175
Food intake value (X_3)	0.065402	0.928
Body mass index (X_4)	-1.17024	-1.744
Mother Education (X_5)	0.038264	0.492
Use of teaching learning material at school (X_6)	-0.049268	-0.705
Communication to School (X_7)	0.031484	0.419
Communication to reaching school (X_8)	-0.073937	-1.018
Attitude of teacher on student (X_9)	-0.008403	-0.108
Adequate Dress during school hour (X_{10})	-0.045288	-0.602
Role of School teacher in understanding text books (X_{11})	-0.112234	-0.773
Role of parents in understanding text books (X_{12})	-0.323554	-2.354*
Access to text (X_{13})	0.288192	3.252**
Availability of text book (X_{14})	-0.141696	-1.002
Home environment (X_{15})	0.143791	1.432
Financial Condition (X_{16})	0.222419	2.499*
Encouragement by the social leaders toward education (X_{17})	-0.068205	-0.998

Encouragement by mother toward Education (X ₁₈)	-0.065219	-0.891
Encouragement by the siblings towards Education (X ₁₉)	-0.024229	-0.334
Role of mother in understanding text book(X ₂₀)	-0.023905	-0.180
Assistance of mother during study (X ₂₁)	0.061301	0.443
Mother level of income (X ₂₂)	0.009461	0.136
Mother's commitment towards continuing education (X ₂₃)	-0.028560	-0.307
Attitude of mother towards children (X ₂₄)	0.058409	0.650
Engagement in essential household activities (X ₂₅)	0.030522	0.449

Critical value (2-Tail, 0.05) = +or- 1.979

*Significant at 5% level

Critical value (2-Tail, 0.01) = +or- 2.617

** Significant at 1% level

Multiple R = 0.54238
 R Square = 0.29418
 Adjusted R² = 0.19218
 Standard Error = 3.07516

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	25	681.86338	27.27454
Residual	173	1635.99591	9.45662

F = 2.88417 Signif F = 0.0000

From table 2, it is found that all these 25 variables had shown together their regression effect on the role of elementary school students towards the level of their performance through Sarva Shiksha Mission (Y) and they explain 29.41 per cent of the total agglomerated effect. The three variables such as Role of parents in understanding text books (X₁₂), Access to text (X₁₃), and Financial Condition (X₁₆) are identified as the most significant variables in order to explain the total regression effect on the predictor variable.

Table 3: Step down regression Analysis

1. X₁₂

Multiple R = 0.36894
 R Square = 0.13612
 Adjusted R² = 0.13173
 Standard Error = 3.18815

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	315.49552	315.49552
Residual	197	2002.36377	10.16428

F = 31.03962 Signif F = 0.0000

2. X₁₃

Multiple R = 0.44360
R Square = 0.19678
Adjusted R² = 0.18859
Standard Error = 3.08200

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	456.11185	228.05593
Residual	196	1861.74744	9.49871

F = 24.00914 Signif F = 0.0000

3. X₁

Multiple R = 0.46340
R Square = 0.21474
Adjusted R² = 0.20266
Standard Error = 3.05515

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	3	497.74302	165.91434
Residual	195	1820.11627	9.33393

F = 17.77540 Signif F = 0.0000

4. X₁₆

Multiple R = 0.48084
R Square = 0.23120
Adjusted R² = 0.21535
Standard Error = 3.03074



Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	4	535.89480	133.97370
Residual	194	1781.96449	9.18538

F = 14.58553 Signif F = 0.0000

From placing the variables into a step down model of regression analysis, it is found that after step 4, four variables Viz. of Role of parents in understanding text books (X_{12}), Access to text (X_{13}), Age (X_1), Financial Condition (X_{16}) summated had explained 23.12 per cent of the total effect. Thus, rest 21 variables were explaining only about 6.29 per cent of total effect. It is interesting to note that in the step down model, role of parents in understanding text books had come up innovatively to characterize the agglomerated effect of these four variables on the role of elementary school students towards the level of their performance through Sarva Shiksha Mission.

Conclusion

State report card of different States and DISE data during the year 2003-04 (at the entry level of Class I) to 2010-11 (at the pass out level of Class VIII) as collected by NUEPA, it is being calculated that the above mentioned cohort period, the Wastage in terms of dropout at the elementary level was 45.62 per cent in the year 2011. Efforts have been given from the part of Sarva Shiksha Mission, but despite significant progress in every sphere of elementary education, the goal to achieve universal elementary enrolment is still a far distant dream. Findings from this study suggest that sample size should be large in order to explore more number of variables towards the identification of reasons of Wastage of human resources among the children of elementary classes of Chanditala-I and Mogra-Chinsurah Blocks of the District of Hooghly of the state of West Bengal in order the enhance the performance level of elementary students.

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