

Report on

Social Diversity and Learning Achievement

The Status of Primary Education in Rural Bihar



Programmes in Education

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- Social Assessment Study on Teacher Education in Bihar, Supported by World Bank, India, 2013.
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- Dalit Studies in Higher Education: Vision and Challenges, edited by Arun Kumar and Sanjay Kumar, Deshkal Publication, Delhi, 2005.
- Teacher Training Manual on Language and Style of Education in Science and Mathematics, Deshkal Publication, Delhi, 2004.

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Abbreviations

BCF	Bihar Curriculum Framework
BRC	Block Resource Centre
BRCC	Block Resource Centre Coordinator
CCE	Continuous Comprehensive Evaluation
CCT	Continuous Comprehensive Teaching
CRC	Cluster Resource Centre
CRCC	Cluster Resource Centre Coordinator
DISE	District Information System for Education
FGD	Focus Group Discussion
GER	Gross Enrolment Ratio
GOB	Government of Bihar
GOI	Government of India
HM	Head Master
MBC	Most Backward Caste
MDM	Mid Day Meal
NCERT	National Council of Educational Research and Training
NCF	National Curriculum Framework
OBC	Other Backward Caste
RTE	Right to Education Act, 2009
SC	Scheduled Caste
SCERT	State Council for Educational Research and Training
SMC	School Management Committee
SSA	Sarva Shiksha Abhiyan
ST	Scheduled Tribe
TLM	Teaching Learning Materials

Executive Summary

This report is an outcome of a study undertaken by Deshkal Society in two districts of Bihar, Gaya and Katihar, with the intention of tracking the present primary education situation in rural Bihar, India in view of large, recent increases in enrolment numbers. The increase which has mainly been attributed to first generation learners from marginalised communities has also created socially diverse classrooms. Hence, the report's main concern is how children from different social categories are performing in schools, and what factors may be associated for their current learning achievements.

While the enlarged enrolment is obviously good news for the literacy scene in the country, this is not without its concerns for education quality and equitable outreach. According to DISE data, in 2002-03 the number of enrolment for class I to V was 99,91,379 and by 2012-13 the number increased to 1,32,98,802. Despite efforts to keep up with the needs of the enlarged enrolment there is a shortfall of classrooms and well trained teachers.

Objective of the study

The study attempts to identify and link the school and community based factors that affect the learning experience and achievements of children from diverse backgrounds. It also explores different learning needs and constraints of children from diverse backgrounds and how it affects their learning achievements.

Geographical coverage and research design

Districts Gaya and Katihar of the state were selected for the data collection for the report. The Scheduled Castes constitute 30 per cent of the total population in District Gaya. On the other hand, district Katihar has 42.52 per cent Muslim population. District Katihar also has 5.86 per cent of Scheduled Tribe population, which is relatively higher vis-à-vis other major districts of Bihar.

The research design for the report employed a multi-pronged data collection process. It consisted of child's social profile survey questionnaire and learning achievement test tools for students (4,229 students in Gaya and 5,231 students in Katihar), focus groups discussions, in-depth

interviews and classroom observations, involving all relevant stakeholders, i.e. parents, children, teachers, tola sevaks, CRC/BRC coordinators, district and block level education officials, trainers, villagers, community leaders, private school teachers and students. Collection of all the data has employed a combined balance of quantitative and qualitative research methods. The process of qualitative data collection was executed after the findings of quantitative data had emerged, and this largely determined the focus and course of the former data collection process.

Key findings

The study documents the children's social and economic background, how these factors influence the attitude of parents and children towards education. The study attempts to link, among others, the level of parental education, economic status and private tuition to achievement.

Parents' education level: This report reiterates the well known finding that parents' educational level influences children's educational achievement. It provides ample data of percentages of children by social category and educational level of both parents separately. That is, the report tells us, what percentage of children have fathers or mothers who have completed primary education or not, or reached other levels. This indicates those who are first generation learners and may have special learning support needs. Large sections of parents in this sample had low or no-education. The report indicates that in both districts of Katihar and Gaya, high percent of fathers respectively from Scheduled Caste, Scheduled Tribe and Muslim communities were deprived of any kind of schooling and even higher percentages of mothers respectively from Scheduled Caste, Scheduled Tribe and Muslim communities did not receive any school education either.

Economic background of family, vulnerability and migration: The level of family income as well as the family's social standing has been found to be interlinked. About 60 per cent of households in the sample do not have any land. This is overlapped with socially deprived groups. About 80 per cent of Scheduled Castes and slightly less Scheduled Tribes households do not have any land in

Gaya and Katihar. Over 60 per cent Muslim households are also without any land ownership in Katihar. Those who own land may actually own very small pieces of land so that they are not self sufficient. The report finds that large proportions of both mothers and fathers take up casual labour in both districts. If those taking up casual labour are also those who do not own much land, this group would be economically very vulnerable.

Migration: The pattern of migration along with family income impacts the scheme of school enrolment and attendance of children. Though it appears that only small sections of children migrate, many parents appear to leave their native place, leaving behind their children. About 38 per cent Muslim and about 35 per cent MBC parents in Gaya migrate without their children. Even if children do not migrate, it is very likely that their schooling is disrupted if the parents move out of the habitation.

Status of children' learning: An achievement survey is usually undertaken in order to check the health of the system rather than to check the learning level of individual children in the system. Though the individual child's achievement may also be tracked – but that is not the purpose of an achievement survey.

The report has revealed appalling depths of poor reading level of children. Worryingly, the poorer and socially deprived sections have been badly affected. Mathematics provides an equally sorry picture. Recognition of mathematical numbers poses a problem therefore to expect these children to master the mathematical concepts is unreal. To make matter further awkward, teachers appear not to be confident in handling the Continuous and Comprehensive Evaluation method.

Non-encouraging Ambience: The catalogue of predicaments that causes non-encouraging ambience, resulting in poor learning achievements of children is long. These are, among others, inadequate classrooms, adverse Pupil-Teacher Ratio, insufficient teacher education, non-academic distractions of teachers, and lack of cooperation between school and SMC members. The present state of primary education underlines the yawning gap between the aspirations of parents and policy makers on the other hand.

Pedagogic transition: The National Curriculum Framework (NCF) and the Bihar Curriculum Framework (BCF) has been part of a pedagogical transition which mainly focuses upon children creating their own knowledge. The transition is directed towards inclusive and student centred classrooms. Unfortunately, this system requires appropriate number of teachers and teachers who are well trained themselves. All curriculum change should be contingent upon the skill upgradation of teachers. This is especially

obvious in the teaching of English. A new language cannot be introduced to children by teachers who are themselves not proficient in the language. The report has dwelt at length upon these pedagogic lacunae.

Private teaching arrangement: The continuing problems facing the school system has helped erect the private teaching or coaching structures. The social category-wise aggregated data by social class provides important insights. Children from less deprived social category or upper castes attend private tuition more than that of children of Scheduled Castes, Scheduled Tribes and Muslims. In Gaya only 29.27 per cent and 9.09 per cent SC and ST children receive private tuition vis-à-vis 62.03 per cent children from Upper Castes. Their respective percentages in Katihar are 36.31, 38.45 and 61.22. This may directly lead to inequality within classrooms because children from disadvantaged groups are usually first generation learners. Another divide is created because more boys are provided private tuition than girls.

Selected Recommendations

The social diverse classrooms have generated varied possibilities, priorities and strategies that are needed for children from different social backgrounds. Therefore, the report suggests measures to infuse educational equity in schools that are vital for children from marginalised communities who are first generation learners and do not enjoy academic support at home. Such measures include development of children social profile, integrating diversity and community in teacher education programme, extensive training on CCT and CCE process, strengthening the institution of *Tola Sevak*, non-discriminatory treatment to Madrasas, sensitisation and training of SMC members, and undertaking independent education systems assessment studies. It is hoped that these initiated or strengthened steps will improve the classroom performance of socially diverse children, and boost up the learning achievements of school children to an acceptable and satisfactory level.

The Bihar government, on the other hand, has been taking a number of measures that are essential to improve learning achievements of children. Steps such as provision of optimum infrastructure, bettered pre-service and in-service teacher education, curtailment of non-academic programmes implemented in schools and bolstered monitoring and evaluation systems need to be further strengthened and sustained. It is expected that the ongoing measures and the report's recommendations will bring much needed educational equity in the classroom, which is indispensable for inspiring learning parity and improvement for all children.



Introduction

Schools are increasingly expected to make up for the failures of other social institutions. For the first time in history, we expect schools to educate everyone, not only those whose parents were educated themselves. (Brighouse 2006, 1)

Background and context for the study: This report, in the context of rural Bihar, maps the primary education landscape against the backdrop of a huge increase in the government primary school enrolment. Some indicative data here will be immensely helpful to develop the perspective, and also to appreciate the opportunities and challenges that the evolving scenario has presented to the state. According to DISE data, in 2002–03 the number of enrolment in classes I to V was 99,91,379 and by 2012–13 this number increased to 1,32,98,802. During the same period the number of teachers has increased from 1,43,611 (89,720 in primary schools and 53,891 in upper primary schools) to 3,21,333 (1,19,671 in primary schools and 2,01,662 in upper primary schools). Similarly, the number of schools has increased from 53,276 (44,374 primary schools and 8,902 upper primary schools) to 65,534 (38,359 primary schools and 27,175 upper primary schools). Obviously, the task at hand is huge. There are still not enough classrooms and teachers. Moreover, the number of children from marginalised sections of the society has also increased immensely.

The reasons for increase in the number of children from the marginalised sections are manifold. First, availability of schools in the vicinity, especially for girls, has proved to be convenient and an attraction as well. Second, several education promotion programmes (free dress, free textbooks, scholarships etc.) are in place that act as sources of inducement for both children and parents. Third, the provision of school meals (mid-day meal programme) has brought students to schools and encouraged them to stay. Fourth, growing awareness about the importance of education to increase children's life chances has also influenced parents (Probe Revisited, 2011).

The notable enrolment increase and Gross Enrolment Ratio (GER) of 91.4 per cent must be qualified by a number of developments in primary education that have complicated education system in Bihar. Children in rural

Bihar who receive or do not receive primary education can be broadly classified into four categories:

1. Children, who only attend government primary schools with varying degrees of attendance. Some attend regularly, some are very irregular and majority are right in the middle;
2. Children who attend government schools but also undertake private tuition. Many of them reach schools late because the timing of both the tuition and school clash and the former is preferred;
3. Children who attend private schools but are also enrolled in government schools. Main reasons behind such arrangements are to avail various incentive schemes of the government (free dress, scholarships etc.) or to render children eligible for Navodaya Vidyalay; and
4. Children who only attend private schools. Their numbers are substantial if their villages are not far from urban centres. In recent years, the number of private schools is steadily increasing in rural areas (Annual Status of Education Report (Rural) 2013 & 2014).

Geographical coverage and Research design

Data collection for the report was conducted in Gaya and Katihar districts of Bihar. Both the districts are remarkable in particular demographic constitution. The district of Gaya has a sizeable population of Scheduled Caste (SC). Nearly 30 per cent of the population of the district belong to SC communities (DISE, 2011–12). On the other hand, the district of Katihar has a significant Muslim population. According to the Census 2001, Muslims constitute 42.52 per cent of the population of the Katihar district. Besides, the district has 5.86 per cent of SC population, which is relatively higher vis-à-vis other major districts of Bihar.

Primary education profiles of the districts indicate that Gaya has 1,689 primary and 1,388 primary with upper primary schools. There are 2,94,673 students enrolled in primary schools, while their number in upper primary schools is 5,75,775. For them the state has provisioned 1,689 and 1,388 teachers in primary and primary with upper primary schools respectively. In Katihar the numbers of primary and primary with upper primary are 1,105 and 697 respectively. There are 5,039 teachers who take care of 2,44,687 students in the primary schools, while 7,433 teachers of primary with upper primary schools look after 3,83,580 students.

The research design for the report employed a multi-pronged data collection process. It consisted of child's social profile survey questionnaire and learning achievement test tools for students (4,229 students in Gaya and 5,231 students in Katihar), focus groups discussions, in-depth interviews and classroom observations, involving all relevant stakeholders, i.e. parents, children, teachers, tola sevaks, CRC/BRC coordinators, district and block level education officials, trainers, villagers, community leaders, private school teachers and students. Collection of all the data has employed a combined balance of quantitative and qualitative research methods. The process of qualitative data collection was executed after the findings of quantitative data had emerged, and this largely determined the focus and course of the former data collection process.

Organisation of the report: The report presents and analyses the findings of both quantitative and qualitative research inquiry that aims to identify and link the school and community based factors that affect the learning experience and achievements of children from diverse backgrounds. In the process, it also explores different learning needs and constraints of children from diverse backgrounds and how it affects their learning achievements. The report is divided into four chapters. Chapter 1 explores and analyses the socio-economic profile of children of classes I to V who study at government primary and upper

primary schools in rural Bihar. It takes into account their social categorization, detailing their caste and religious backgrounds. The report has classified the community into six broader segments that share within themselves maximum commonalities. These are: Scheduled Caste (SC), Schedules Tribe (ST), OBC (Other Backward Caste), MBC (Most Backward Caste), Upper Caste and Muslim segments. The profile also features the education status of parents, household landownership and occupation, family's status of migration and the availability of private tuition for the children. Chapter 2 discusses the existing school and education system inputs and how these impact the learning achievements of children. Whether there are optimal availability of infrastructure and teaching facilities or support to mahadalit, minority or multilingual children, without a sympathetic appreciation of the social diversity the government's efforts will fall short of the goal of quality education. The relationship between resource/service input and learning output is more significant for the first generation learners who critically, if not exclusively, rely on school's competence to transact curriculum and enhance their learning capability. The chapter also discusses the impact of non-academic programmes on the learning environment of schools. Chapter 3 assesses the influence of home and community on children's learning achievements, given that the first generation learners have joined the schools in large numbers. Away from schools, private tuition is rapidly emerging as another source of learning that many parents prefer, even if it is expensive and often clashes with school timing. The chapter also highlights how community's scholastic indifference is incrementing academic solitude of schools. Finally, Chapter 4 catalogues suggested recommendations that have emerged from the ground, and are the voices of different stakeholders, latent or manifest, articulated or implied, which are minimally required for a quality education of children at primary and upper primary schools in rural Bihar.

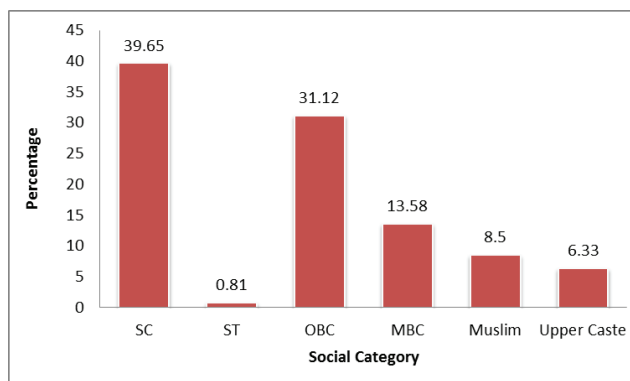
CHAPTER 1

Social and economic profile of children

Performance of children in schools varies considerably. Some perform better than others, while some are unable to perform at all. In order to understand why some children do well in schools, while some others perform poorly, it is necessary to appreciate their social and economic background. The worldview of parents and children, and their attitude towards education, is influenced by their environment. This chapter charts the social and economic profile of children by delineating social categories, parent's education, household landownership and occupation, migration status and the availability of private tuition.

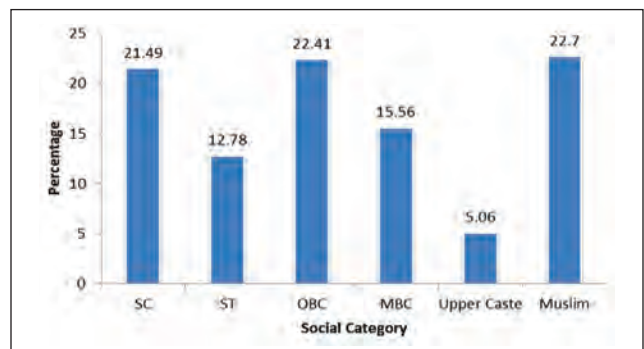
1.1. Social category: Any school, or a classroom, is a microcosm of the community where it is situated. Who comes to the school, who does not or who attends other means of education indicates not only about the school but also about the community and its various segments. In our sampled schools in both the districts, we have taken into account the social background of the students. As mentioned earlier, the district Gaya has more than the average population share of SC communities. In schools of Gaya, 39.65 per cent of the children belong to SC (see Figure 1.1). Hence, these schools offer an opportune window to assess students' performance level in terms of learning attainment in the backdrop of their social background.

Figure 1.1:
Percentage of Children by Social Category (Gaya)



This is even more relevant in the Katihar district where children SC, ST and Muslim communities are amply represented in schools (see Figure 1.2). Representation of Muslim children is highest (22.7 per cent) in the primary schools of the district.

Figure 1.2:
Percentage of Children by Social Category (Katihar)



1.2. Parents' education: Parents influence on children's education is one of the most important factors. Undoubtedly, they are children's first teacher; hence, whether they are educated or have undergone some kind of schooling constitute their worldview on the urgency and necessity of education. It is not only that their education may help children in solving their homework, but it also creates a hopeful environment where children are encouraged to engage in educational activities.

In both of our selected districts, many parents have struggled to complete even the primary education. In Gaya 41.75 per cent of fathers could not finish their primary education. Mothers are in even more precarious situation; 63.41 per cent did not attend any school and 18.65 per cent were enrolled in primary education but gave up before its completion (see Figure 1.3). Further, the socially disaggregated data indicate that 45.25 per cent fathers of children belonging to SC did not attend any school and 74.64 per cent mothers from the same background did not have this opportunity (for details, see Annexe 1).

Figure 1.3: Parents' Education (Gaya)

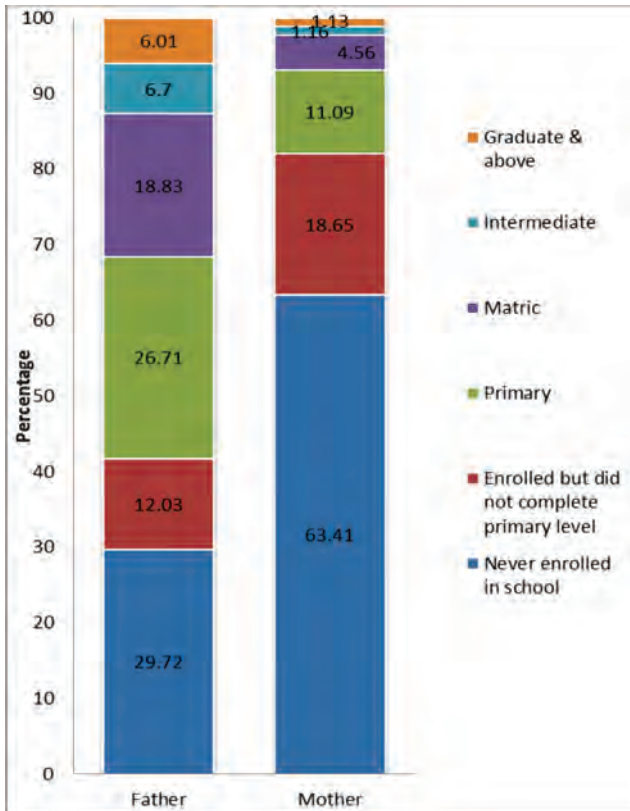
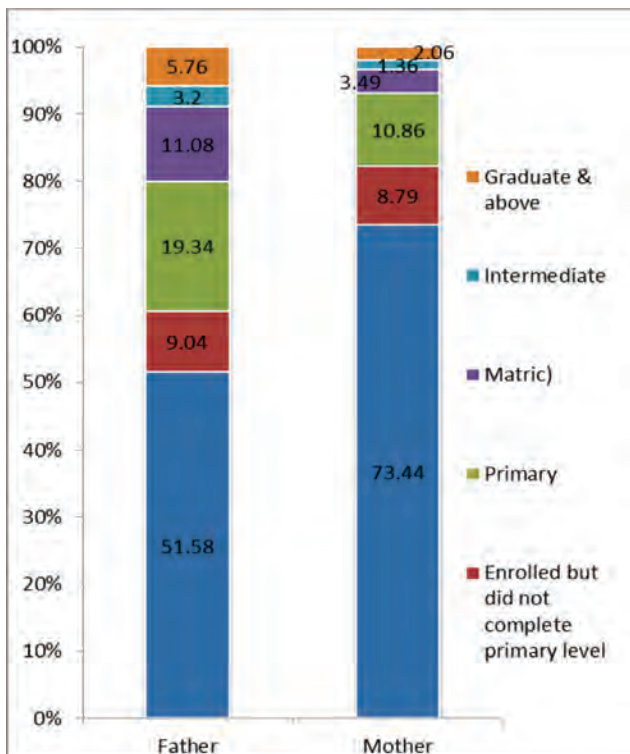


Figure 1.4: Parents' Education (Katihar)

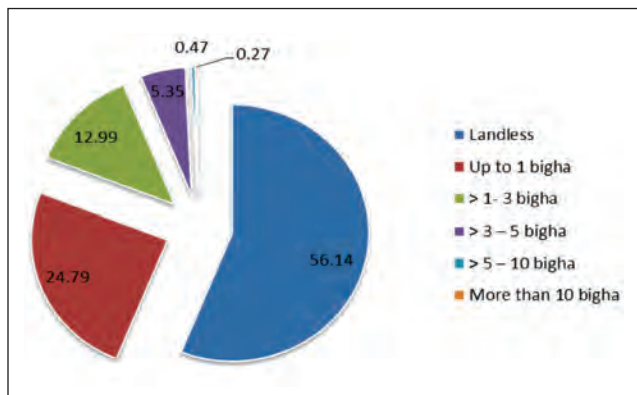


In the Katihar district, which has a sizable population of SC, ST and Muslim parents, 51.58 per cent of the fathers and 73.44 per cent of mothers did not get any opportunity to pursue any kind of schooling. If we disaggregate data socially, the result is even starker: 63.50, 62.36 and 58.91 per cent fathers respectively from SC, ST and Muslim communities were deprived of any kind of schooling whereas 83.96, 87.08 and 77.45 per cent mothers respectively from SC, ST and Muslim communities did not receive any school education (for details, see Annexe 1).

1.3. Household landownership and occupation: Landownership and occupation of a household determine the level of income constraints of the family. Households' enthusiasm and persistence to provide education to their children are largely contingent upon the availability of income and the perception of family members whether education for children is considered a luxury or a necessity.

1.3.1. Household landownership: As indicated in the figure 1.5, 56.14 per cent and 63.36 per cent households do not have any land in Gaya and Katihar respectively. According to the socially disaggregated data 84.15 per cent SC, 84.85 per cent ST, and 76.65 per cent Muslim households do not have any land in Gaya. In Katihar, on the other hand, 84.92 per cent SC, 61.55 per cent ST and 63.82 per cent Muslims households are deprived of any landownership (for details, see Annexe 2).

Figure 1.5: Household landownership (Gaya) (figures in percentage) (1 Bigha: 75 Decimals)



1.3.2. Household occupation: Regarding household occupation casual labour dominates as the predominant source of employment. In Gaya 39.87 per cent fathers take up casual labour, and 31.54 per cent mothers utilize it as their source of income. Among SC communities, 66.69 per cent of the fathers are engaged in casual labour (for details, see Annexe 3).

Figure 1.6: Household landownership (Katihar) (figures in percentage) (1 Bigha: 88 Decimals)

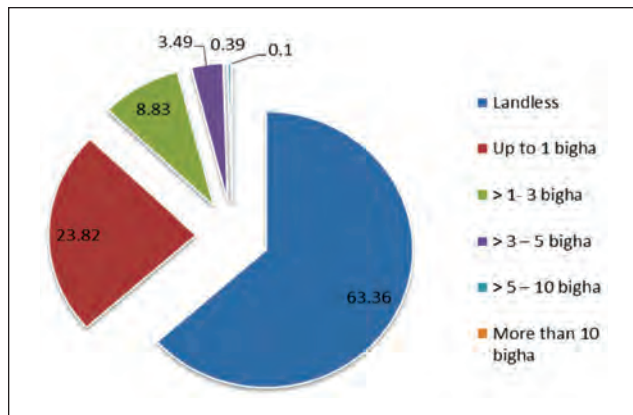


Figure 1.7: Father's Occupation (Gaya) (figures in percentage)

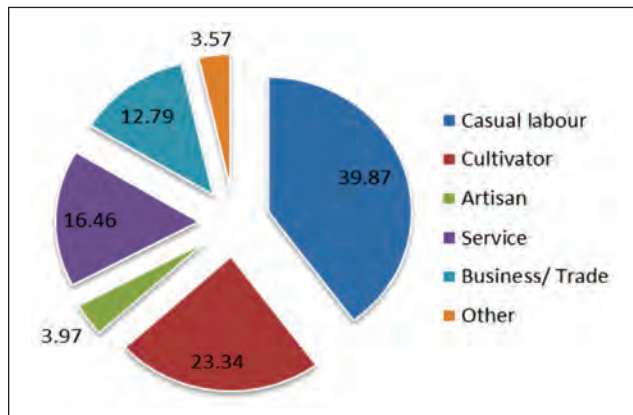
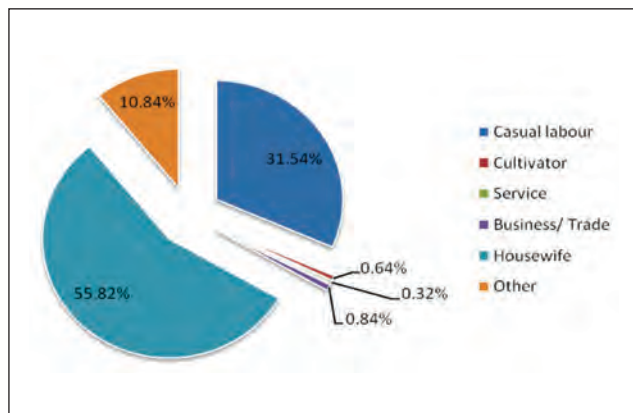


Figure 1.8: Mother's Occupation (Gaya) (figures in percentage)



Similarly, in Katihar, casual labour is the main source of employment. About 71.68 per cent of the fathers and 54.14 per cent of mothers take up casual labour to support their families. The percentage, however, increases to 86.65 per cent, 83.20 per cent and 68.55 per cent for fathers in the case of SC, ST and Muslim communities respectively. For mothers from these communities the percentage is 77.81 per cent, 80.78 per cent and 41.64 per cent for SC, ST and Muslims respectively (for details, see Annexe 3).

Figure 1.9: Father's Occupation (Katihar) (figures in percentage)

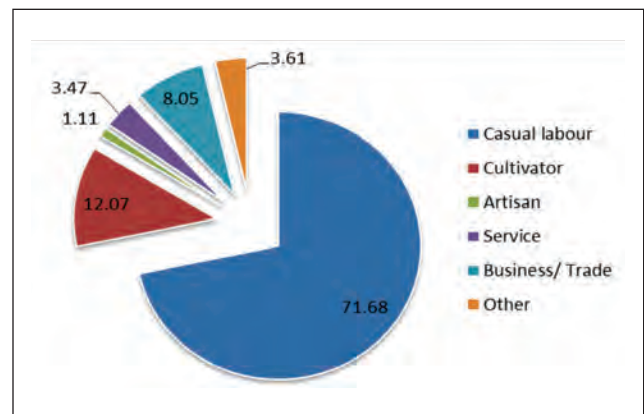
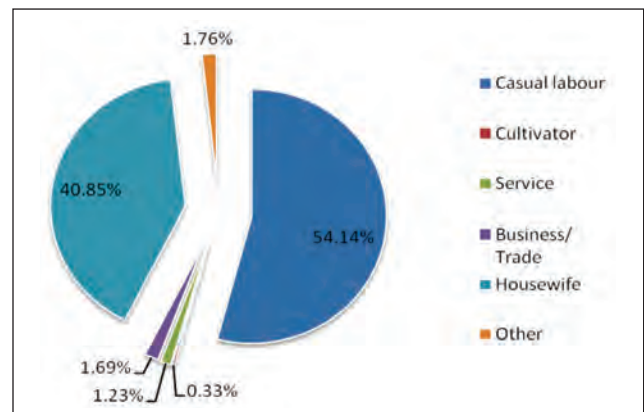


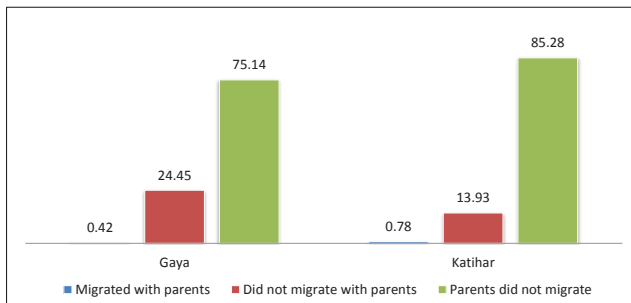
Figure 1.10: Mother's Occupation (Katihar) (figures in percentage)



1.4. Migration: The pattern of migration among various social categories indicates how it impacts short- and long-term educational goals or the lack of these for children. It is obvious from the data that children hardly migrate. Only 0.42 per cent and 0.78 per cent children in Gaya and Katihar respectively have migrated. However, many parents leave their native place, leaving behind their children. The occurrence of this phenomenon is more in Gaya (24.45 per cent) as opposed to 13.93 per cent in Katihar. In Gaya 38.13 per cent Muslim and 35.21 per cent

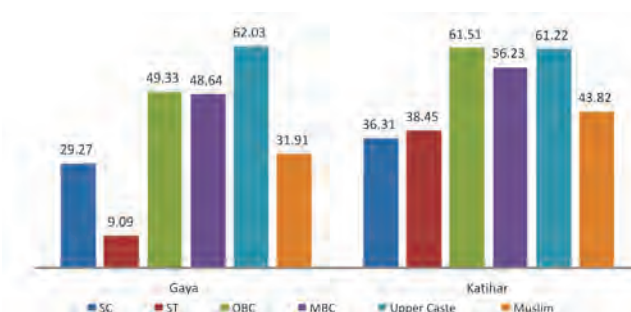
MBC parents migrate without their children (for details, see Annexe 4).

Figure 1.11: Migration status of children (figures in percentage)



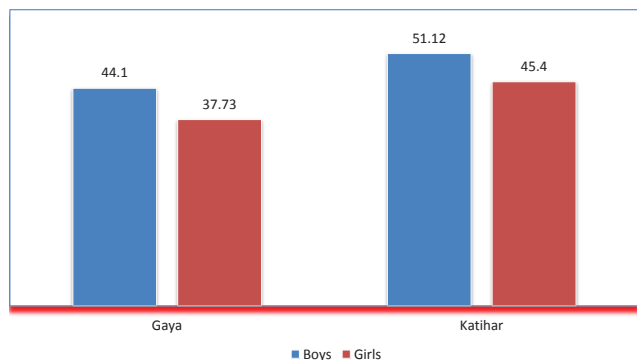
1.5. Private tuition: The availability of private tuition points to a number of social realities. It may indicate that the education environment at a school is not satisfactory, thus, forcing parents to provide supplementary assistance to their children. It further signifies an enhanced awareness and ambition of parents who want to provide more learning hours to their children. It could also point to the variable of the affordability that is linked to social status in society. This, however, has its own momentum, and even parents who cannot afford private tuition provide it to their children at the cost of other essential expenditures. The following Figure illustrates the social categories of children who receive private tuition.

Figure 1.12: Social categories of children receiving private tuition (figures in percentage)



In Gaya, 40.93 per cent children receive private tuition and in Katihar their share is 48.30 per cent. It shows the growing popularity of private tuition among parents. Whether it is voluntary or forced is another moot question. As the figure shows, the prevalence of private tuition is across all social categories except STs in the Gaya district.

Figure 1.13: Gender and private education (figures in percentage)



Parents send both boys and girls for private tuition. However, the percentage of boys is slightly higher than that of girls. In Katihar, a majority of boys receive private tuition.

Conclusion: It is obvious that both the districts of Gaya and Katihar have a sizeable number of underprivileged children. The number of upper caste children is significantly low, i.e., only 8.5 per cent in Gaya and 5.06 per cent in Katihar. In Katihar the majority of children are first generation learners, whereas in Gaya around 58 per cent of the fathers have received primary education or more. Overwhelming majority of mothers did not receive any education in both the districts, making them unable to help their children with the learning process. Both in Gaya and Katihar, majority of households are landless labourers. They are, for the most part, employed as casual labour. Migration does not affect these children in majority of the cases. Less than 1 per cent of children migrate with their parents. This study also finds that 40.93 per cent children in Gaya and 48.30 per cent in Katihar make use of private tuition. More boys than girls receive private tuition.

CHAPTER 2

School and the education system inputs and learning achievement

The kind of academic inputs children receive in schools is of critical importance for their learning achievements. Again, the education system's support, from CRC to SCERT, to schools is equally decisive in providing quality education to children. Proper academic support is especially significant for first generation learners whose parents cannot add to what children learn in schools. Recently, it has been proposed that academic support should be based on continuous and comprehensive teaching and evaluation of children. However, this method has little chance of succeeding as long as optimum infrastructure and teacher training remain inadequate. Overwhelming instances of crowded classrooms, untrained or insufficiently trained teachers, children with no academic support at home are some of the factors that have rendered CCT and CCE rather a utopian concept.

2.1. Optimum infrastructure: Often documented issues such as insufficient classrooms (conforming optimal student-classroom ratio), lack of drinking water facilities and toilets (especially for girls) are factors that affect the motivation of students and their parents to continue with the school system. This is especially relevant for children from marginalised communities whose parents have to preempt the temptation to draw their children into domestic or earning labour force if they observe no or unsatisfactory learning outcome. Since a great majority of hardly educated parents are in no position to academically support their children at home, schools' disappointing performance take away whatever motivation they have to provide education to their children.

According to DISE (2012–13), there are 20.06 per cent primary schools in Bihar without their own buildings. This is a despondent figure when compared with national averages and data from neighbouring states. For example, the national average for primary schools is 1.65 per cent, in Uttar Pradesh it is 0.44 per cent and in Jharkhand it stands at 0.64 per cent. On the other hand, the average number of

classrooms in primary schools in Bihar is 2.5, as opposed to the national average of 3.3. With respect to the student-classroom ratio, 63 students occupy one classroom while the desired norm is only 30 students for each classroom. The national average in this regard is only 27, which is even healthier than the desired norm. This is a very bleak commentary on the situation of primary education in Bihar, because even Jharkhand and Uttar Pradesh have the ratio of 24 and 33 respectively in this regard.



A crowded multi-grade gathering

With respect to school related facilities, DISE data reveal that 10.51 per cent of the primary schools in Bihar do not have drinking water facilities, whereas the national average is 6.52 per cent. Only 61.67 per cent and 67 per cent primary schools have boys and girls toilets respectively. By contrast, the national averages for such facilities are 61.72 per cent and 84.10 per cent respectively. Primary schools of Bihar score poorly with regard to electricity connections in schools. Only 2.35 per cent of the primary schools have this facility, while the national average is 36.44 per cent.

Clearly, the list of what needs to be done to improve the overall situation of primary schools is very long. However, the essential departure point in this regard is the provision

of buildings to all schools. Without this bare minimum facility, the euphoria of quality education backed by the Right to Education is pointless.



A school sans building

The problem of open-air schools

During data collection in Katihar, we came across a school that was operational under a couple of trees. Each tree and its shade constituted a multi-grade class; classes one and two formed one cluster and classes three, four and five formed another. There were two teachers and they did not look happy while talking about summer *loo* (hot wind) or monsoon rains. "We become helpless and simply suspend classes if rain is incessant. During summer *loo*, the attendance becomes very thin once morning coolness gives way to hot winds. Further, everything is makeshift here. We have a mobile office, TLM and also MDM provisions. We carry everything from our homes to this empty school", lamented the teachers.

2.2. Teachers and Tola Sevaks: In this section, the report will discuss the issue of teachers and *tola sevaks* in primary schools. Though the subject of teachers, their quality recruitment and provision of quality and adequate training have been discussed in other reports as well, this report focuses on the role and impact of *tola sevaks* on the function and efficacy of primary schools, especially for Mahadalit children for whom *tola sevaks* are brought into the primary education system.

DISE data reveal that the average number of teachers per primary school in Bihar is more than the national average. It is 3.10 per school, and the national average is 2.90. However, this relatively healthier number is undermined by two other factors. First, the pupil-teacher ratio in Bihar's primary schools is 51, highest in the country, whereas the national average is only 30. It indicates that the

state's primary schools are overcrowded and there are not enough classrooms and teachers to provide quality primary education to children. Interestingly, the mandatory pupil-teacher ratio of 30:1 for primary education (RTE 2009) is maintained only in 14.41 per cent of the schools, whereas the national average for such schools is 63.28 per cent. Second in Bihar's primary schools, only 14.90 per cent male and 15.05 per cent female teachers have received some kind of in-service training. The national percentage for such training is 36.30 per cent and 35.31 per cent for male and female teachers respectively. Without in-service training programmes, teachers are not updated and refreshed on what they have already learnt and also about new developments that have taken place in the realm of pedagogy. This is more relevant in the context of Right to Education and Continuous and Comprehensive Teaching and Evaluation (CCT & CCE). Hence, even if the average number of teachers per primary school in Bihar is more than the national average, the adverse pupil-teacher ratio and undertrained teachers raise the question of the competence and skill of teachers to handle this fast evolving primary education landscape of Bihar.



An FGD of teachers

The Government of Bihar has introduced *tola sevaks* as novel concept that focuses on children from Mahadalit communities, look after their specific problems and especially concentrates help improve the learning environment taking into account the fact that many of children from Mahadalit communities are first generation learners. *Tola sevaks* not only function as motivators and undertake community mobilisation in order that parents send their children to schools, but also personally supervise and bring children of Mahadalit communities to school. Besides, they also carry out upcharatmak shikshan (remedial teaching) at Utthan Kendra, which involves the provision of additional teaching to these children since they are mostly first generation learners. The main strategy to effect this task is as follows:

Insufficient and inflexible training programmes

Most teachers in both Gaya and Katihar districts were not satisfied with the current provisions of in-service training programmes, especially where there are not enough teachers and classrooms. "Teaching children in multi-grade classrooms is most difficult. However, we have not been provided any training or guideline regarding the issue", teachers complained. During the fieldwork, children from different grades were mostly observed to be sitting next to each other rather than in separate clusters. Even in classrooms with two blackboards, each for different grades, placed on opposite walls, children sat and faced only one blackboard.

Teachers also deplored the deteriorating quality of trainers, who, they perceive, are not capable to provide any quality training. One teacher in Gaya explained: "The way children run away or lose interest when teachers teach badly, in the same we get bored if trainers do not train efficiently."

- Each Mahadalit village/tola will be a unit;
- The functionary, i.e., *tola sevak*, will be selected from among the youths who have matriculated and belong to the respective village/tola;
- Each tola sevak will be responsible for 25 Mahadalit children from the tola/village.
- Tola sevak will be supported by a tola samiti that consists of seven members, four of which will be selected from parents/guardians of Mahadalit children by aam sabha (general assembly meeting);
- Tola sevaks will be adequately trained on their rights/duties and remedial teaching methods; also, there will be an orientation programme every month at respective CRC; and



Consultation with tola sevaks

- There will be a minimum of two hours of remedial teaching for Mahadalit children by tola sevaks at their designated 'remedial learning centres'. Teaching includes Hindi, Maths and English lessons in addition to daily prayer and hygiene maintenance.

(Source: *Utthan Guidelines, Bihar Education Project Council, Govt. of Bihar*)

Another controversial point is the specification of remedial teaching for children who lag behind in schools, and it is expected that the teaching process at Utthan Kendra will bridge the learning gap. The remedial teaching, however, requires more specialised skills to execute such teaching. Yet, the question remains whether tola sevaks have or can attain such specialised skills. It seems obvious that remedial teaching continues to be an excessively ambitious undertaking without even a basic training programme for tola sevaks.

2.3. Curriculum transaction: The influence of the curriculum, especially textbooks and their contextual connotations, on children's continued interest in schools cannot be underestimated. Recently, there has been a

Previous pedagogical approaches and practices	Recommended pedagogical approaches and practices
<ul style="list-style-type: none"> • Teaching • Teacher-centred • Teacher as knowledge provider • Rigid structure of curriculum • Teacher as instructor • Learning restricted to textbooks • Learning confined within classrooms • Learning by way of listening and reading • Evaluation through patterned examination system 	<ul style="list-style-type: none"> • Learning • Student-centred • Student as active participant in learning process • Flexible methods and curriculum • Students are autonomous and academically creative • Learning derived from possible various sources • Community and nature are also sources of learning • Activity based learning • Continuous and comprehensive evaluation

(SCERT, Bihar Curriculum Framework 2008)

series of changes in the pedagogical framework across the globe, and India has been both recipient and contributor to this discourse. Taking cue from the National Curriculum Framework (NCF), the Bihar Curriculum Framework (BCF) has also noted this pedagogical transition. Some of the important references are:

It is obvious that the transition is directed towards inclusive and student centred classrooms, as opposed to what is known as ‘traditional primary education of regimented classroom, didactic teaching and subject-bound curriculum’ (Alexander 1995, 8). In order to comply with the objective of BCF, teachers are required to employ Continuous and Comprehensive Teaching (CCT). CCT aims to bridge the hiatus between the learning environment of homes and schools. A child continuously learns and de-learns whether at home or in school. A subject-bound curriculum, however, creates a rigid threshold that a child has to cross everybody when s/he enters the premises of the school. There is no relationship between the ambience of home and school, thus, bringing a utilitarian tone to knowledge creation and the learning atmosphere. To break this impasse, BCF has formulated the curriculum that embraces a method of continuous and comprehensive teaching, which encourages students to add information to their knowledge repertoire in addition to learn novel information that have contextual and communitarian significance.

However, as revealed during fieldwork, teachers face a number of challenges with respect to curriculum transaction. First, though a large number of teachers have been appointed recently by the state government, many of these teachers have the unresolved issues of competence and aptitude. A mammoth effort to provide training is being undertaken by the state government but the task is daunting and requires resources and will power by both teachers and the government. It is expected that once these teachers have acquired the skill and aptitude for CCT, children from all corners of the state will receive education the BCF aims for.

Second, the moot question is, if a large number of teachers are short of optimum skill required to transact the curriculum, how this reality can be appreciated and necessary steps are taken till such teachers acquire the essential expertise? Here, a symbiotic relationship between curriculum development and teachers’ capabilities is an essential departure point. A periodic rigorous assessment of teachers’ capabilities should be the guiding principle of curriculum development. In other words, if a significant number of teachers are ill-prepared for successful curriculum transaction then the curriculum should be

Resource Materials in English: Blossom

A number of teachers in Gaya and Katihar said that textbooks for English are rather daunting, not only for students but for teachers as well. Instructions that are given in English – Read before you teach; For the teachers etc. – are described in difficult English and not easy to follow, especially for Niyojit teachers.

In Katihar, a couple of teachers suggested that in Class I only alphabet should be introduced; in class II only some easy words that have relevance in local context; class III should only cover some very easy sentence (without tense); and in Class IV and V children should learn about tense and some complex sentences.

sympathetic to them, and be simplified accordingly. Curriculum upgradation should be contingent upon the skill upgradation of teachers.

Even for a moment, we appreciate the difficulty teachers face in English, which may be Achilles’ heel for many people in this region, the learning achievement of children in Hindi and arithmetic should have been up to the mark. On the contrary, our field data suggest that children continue to struggle in both the subjects. Tables 2.1 and 2.2 outline the status of learning achievements of children in Grade I.

Table 2.1: Learning achievement: Reading level in Hindi in grade I (figures in percentage)¹

Social category	Gaya		Katihar	
	Can read nothing	Can read letters	Can read nothing	Can read letters
SC	78.90	18.47	67.25	29.82
ST	66.67	33.33	61.70	35.46
OBC	55.96	36.46	53.00	36.41
MBC	65.52	31.90	54.00	40.67
Upper Caste	62.67	28.00	52.63	39.47
Muslim	77.11	16.87	58.55	34.20
Total	69.29	25.90	58.35	35.38

Table 2.1 indicates that in Gaya 69.29 per cent children can read nothing and only 25.90 per cent can read letters. Likewise in Katihar 58.35 per cent can read nothing and 35.38 per cent can read letters. The situation for SC children is bleaker where 78.90 per cent cannot read anything in

¹As the table concerns only grade I respondents, other reading levels (Can read words; Can read simple paragraph; Can read small story) have not been included, though a small percentage of children do score for those levels.

Gaya and 67.25 per cent children in Katihar from same background suffer from this ignominy (For detailed of the data please see Annexe 5) The textbook on Hindi for Class I (*Ankur*) does not even begin with alphabet introduction. It assumes that children will have the sufficient information on alphabet before coming to the primary school. During focus group discussions with teachers a number of them suggested that children are supposed to come to the primary school with alphabet awareness acquired at *Anganwadi*.

The condition is not very different for arithmetic understanding as reflected in the following table. As suggested by table 2.2 in Gaya only 9.72 per cent children can either recognise numbers 10 to 99 or do more than that (recognize numbers 10–99: 7.78 per cent; subtract: 1.43 per cent; divide: 0.51 per cent). Similarly in Katihar only 10.33 can recognise numbers 10 to 99 or do more (for details please see Annexe 5). According to the Arithmetic textbook (*Ganit*) children should be well versed in numbers up to 99, and can also perform simple addition and subtraction. On the whole, findings show that the situation is very dire and the process of even a very basic curriculum transaction is not taking place.

2.4. Examination system versus Continuous and Comprehensive Evaluation (CCE): The Bihar Education Project Council in its manual on Continuous and Comprehensive Evaluation admits that implementing Continuous and Comprehensive Evaluation without Continuous Comprehensive Teaching (CCT) is meaningless (BEP 2012, 24). In other words, the success of CCE critically depends on the meaningful application of CCT. In order to deploy CCE in classrooms, teachers are required to undergo training and orientation courses (CCT) that would enable them not only to understand the tenets and rationale

behind the CCT, but also to become instantaneously innovative and creative to facilitate his/her pupils to engage and develop the learning based on experience, reflection, application and consolidation (BEP 2012, 24–25).

At present, however, the blanket instruction to follow CCE without taking into account whether teachers have undertaken appropriate and sufficient training on CCT is creating profound confusion and ambiguity. Hence, the question is whether it is an instance of putting the cart before the horse. Have we begun to provide continuous and comprehensive teaching? It is a fact that the old examination pattern at the end of the academic calendar has outlived its utility, but are our schools sufficiently prepared to undertake CCE? The situation is further aggravated by the present status of many schools plagued by inadequate classrooms, adverse Pupil-Teacher Ratio, and non-academic distractions of teachers, including the ever-growing concern for the mechanism of mid-day meal arrangements.

Ambiguity on CCE

During an interview in block Korha in district Katihar, teachers opposed the introduction of CCE on the ground that it has removed the examination system, which has resulted in laxity for students who are now assured of progressing to next standard. Examination system, at the end of the academic calendar, according to them, exerted pressure on both students and parents to study, even for a few weeks. Obviously, teachers did hardly comprehend the mode and objective of CCE. For them, CCE is another fancy idea that requires plenty of format filling exercises.

Table 2.2: Learning achievement: Arithmetic level in grade I (figures in percentage)²

Social category	Gaya			Katihar		
	Can do nothing	Can recognize numbers 1-9	Can recognize numbers 10-99	Can do nothing	Can recognize numbers 1-9	Can recognize numbers 10-99
SC	33.81	59.47	5.52	44.44	47.37	6.43
ST	55.56	44.44	0.00	46.10	47.52	5.67
OBC	28.16	59.93	9.03	31.34	56.68	8.29
MBC	20.69	63.79	14.66	40.67	50.67	6.67
Upper Caste	33.33	56.00	8.00	39.47	39.47	21.05
Muslim	33.73	56.63	6.02	36.79	50.78	10.88
Total	30.81	59.47	7.78	39.12	50.55	8.35

²As the table concerns only grade I respondents, other arithmetic levels (Can subtract; Can divide) have not been included, though a small percentage of children do score for those levels.

Though school and higher authorities try to ascertain performance of students by assessing Chatra Pragati Patrak (Student Progress Report), Shikshak Pragati Patrak (Teacher Progress Report) and Vidyalaya Pragati Patrak (School Progress Report), the process and know-how of putting in information in the reports is still open to discussion. These reports are based on the CCE process, and teachers are expected to employ CCT to make data entry in the relevant reports. The predicament here is that not all teachers have been provided training on CCT and CCE, and they have been asked to fill these formats. Hence, the jury is still out on the validity and efficiency of these reports.

The findings of learning achievements in this report are an indicator of how textbooks, which are part of the curriculum, are being followed by school children. The present assessment in this report was taken at a certain point of time, which used to be the methodology of erstwhile school examination system. It was a kind of 'assessment of

learning', which was generally done to help teachers and parents to gather information on the progress of children. It worked on the design of year-end assessment to take note of calendar year's efforts for curriculum transaction. It has its severe limitations that have been detailed in Bihar Education Project's document on CCE (BEP 2012). On the other hand, CCE is a part of 'assessment for learning', which involves the 'on-going, integrated, interactive, informal, in-class assessment' (Johnson 2012).

The following tables describe the assessment that has been done akin to the erstwhile examination system. It shows how the process of curriculum transaction is functioning. Table 2.3 illustrates that 69.29 per cent and 58.35 per cent children studying in grade I in Gaya and Katihar respectively can read nothing. In other words, they cannot even recognise Devanagari alphabet. On the other side of the scale 51.02 per cent and 57.36 per cent children of grade V in Gaya and Katihar respectively cannot read

Table 2.3: Reading level (Hindi) of children of grades I to V

Grade	Can read nothing		Can read letters		Can read words		Can read simple paragraph		Can read small story	
	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar
Class I	677 (69.29%)	531 (58.35%)	253 (25.90%)	322 (35.38%)	32 (3.28%)	41 (4.51%)	12 (1.23%)	11 (1.21%)	3 (0.31%)	5 (0.55%)
Class II	294 (36.89%)	326 (37.47%)	320 (40.15%)	383 (44.02%)	105 (13.17%)	80 (9.20%)	46 (5.77%)	49 (5.63%)	32 (4.02%)	32 (3.68%)
Class III	150 (18.12%)	213 (21.69%)	274 (33.09%)	405 (41.24%)	162 (19.57%)	145 (14.77%)	136 (16.43%)	114 (11.61%)	106 (12.80%)	105 (10.69%)
Class IV	62 (8.07%)	140 (12.92%)	150 (19.53%)	340 (31.37%)	129 (16.80%)	167 (15.41%)	187 (24.35%)	198 (18.27%)	240 (31.25%)	239 (22.05%)
Class V	26 (3.78%)	44 (4.40%)	96 (13.95%)	201 (20.12%)	95 (13.81%)	118 (11.81%)	134 (19.48%)	210 (21.02%)	337 (48.98%)	426 (42.64%)
Total	1209 (29.79%)	1254 (25.88%)	1093 (26.93%)	1651 (34.08%)	523 (12.89%)	551 (11.37%)	515 (12.69%)	582 (12.01%)	718 (17.69%)	807 (16.66%)

Table 2.4: Arithmetic level of children of grades I to V

Grade	Can Do Nothing		Can Recognise Numbers 1-9		Can Recognise Numbers 10-99		Can Subtract		Can Divide	
	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar	Gaya	Katihar
Class I	301 (30.81%)	356 (39.12%)	581 (59.47%)	460 (50.55%)	76 (7.78%)	76 (8.35%)	14 (1.43%)	12 (1.32%)	5 (0.51%)	6 (0.66%)
Class II	75 (9.41%)	134 (15.40%)	426 (53.45%)	504 (57.93%)	188 (23.59%)	150 (17.24%)	94 (11.79%)	60 (6.90%)	14 (1.76%)	22 (2.53%)
Class III	31 (3.74%)	52 (5.30%)	298 (35.99%)	450 (45.82%)	239 (28.86%)	257 (26.17%)	169 (20.41%)	147 (14.97%)	91 (10.99%)	76 (7.74%)
Class IV	14 (1.82%)	27 (2.49%)	128 (16.67%)	355 (32.75%)	188 (24.48%)	286 (26.38%)	239 (31.12%)	216 (19.93%)	199 (25.91%)	200 (18.45%)
Class V	5 (0.73%)	6 (0.60%)	77 (11.19%)	144 (14.41%)	117 (17.01%)	248 (24.82)	196 (28.49%)	250 (25.03%)	293 (42.59%)	351 (35.14%)
Total	426 (10.50%)	575 (11.87%)	1510 (37.21%)	1913 (39.48%)	808 (19.91%)	1017 (20.99%)	712 (17.55%)	685 (14.14%)	602 (14.83%)	655 (13.52%)

(Sample size: Gaya-4058; Katihar-4845)

a small story. Strictly speaking, majority of these grade V children cannot even complete tasks that are meant for grade II children.

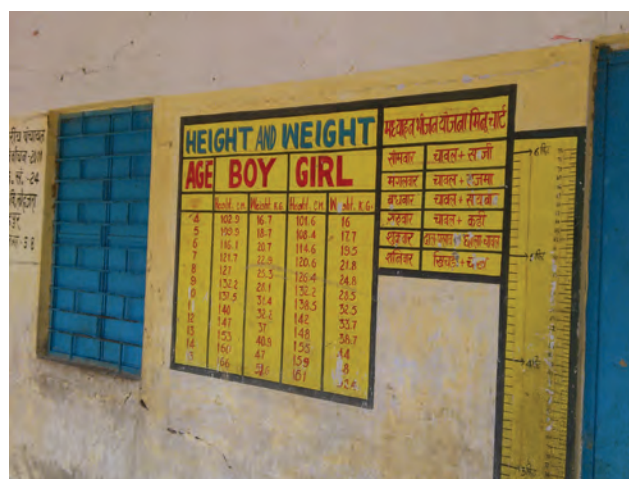
Likewise 30.81 per cent and 39.12 per cent children of grade I in Gaya and Katihar respectively are unable to do simplest of arithmetic tasks whatsoever, not even recognising 1 to 9 digits. Situation for grade V is no improvement either. Here 57.41 per cent children in Gaya and 64.86 per cent students in Katihar cannot do any task of division that they should have learnt in grade II.

2.5. Non-academic programmes and assignments: Mid-day meal engagement of teachers, implementation of a number of students' welfare schemes (dress, cycle, scholarship etc.), related paper work, non-academic engagements delegated by the district administration are consuming a major portion of teachers' time, which is meant for academic activities.

2.5.1. Mid-Day Meal (MDM): Though, in principle, only the Head Master (HM) should take care of MDM preparation and distribution. In practice, however, many teachers have to be involved because it is such a huge task. It involves a regular finance inflow and outflow, the HM has to be very alert and meticulous to avoid any financial mismanagement. The involvement of the HM and the teachers in carrying out the MDM programme is quite substantial, and negatively affects academic oversight and supervision in schools.

A number of teachers during Focus Group Discussion (FGD) in Gaya district said that MDM, though brings many children to schools, causes a massive distraction from academic works. These days the quality of khichri is more important than the quality of education. Just imagine, how much effort is needed to feed a barati (Groom's party), here in school you have to arrange food for a barat everyday. Teachers insisted that MDM should be managed by some outside agency. Some even suggested that the outside agency should provide dry meal in place of warm meal that is being served these days.

2.5.2. Implementation of Education Promotion Schemes: The state government executes a number of schemes through schools, including free school uniforms and scholarship programmes. Students who have an attendance rate of more than 75 per cent are eligible to avail themselves of these schemes.³ The process of determining eligibility or



MDM Menu chart

otherwise ruffles feather of parents of ineligible children, which causes tension and anxiety all round, and results in severe academic distraction.

The HM of the Upper Primary School block Wazirganj (Gaya district) was wary of all these schemes. "We are being pressurised by parents to show 75 per cent attendance of their children, which is the minimum eligibility criteria for a number of schemes, even if this is not the case." He was of firm opinion that the HM should not be given financial responsibility of any kind. All financial assignments and their related managements, including MDM, should be outsourced. These can be given to any outside agency, which have some expertise in the field. "We learn by trial and error basis, causing extreme anxiety and, at the end of the day, it corners all our attention, which should have gone to improving academic and learning environment", he said.

2.5.3. Excessive paper work and deputation: Principals and teachers are asked to fill out a number of formats ranging from the attendance and dropout status of children to measuring the weight of children to assess the impact of the MDM. Many teachers wonder how many of these formats are really necessary. Without any clerical assistance, the principal and teachers have to fill out these forms themselves, a task which is undertaken at the expense of academic activities. Besides, some teachers are summoned on deputations by higher officials to do paper works or other assignments. And the apparent irony here is that they are not surplus teachers but the best teachers available to schools.

³Recent reports, however, suggest that the Government of Bihar is contemplating to ease this eligibility caveat (Singh: 2014)

During an FGD of CRC Coordinators and HMs in Katihar, they all agreed that during the last decade the logistic and administrative works in schools have increased manifold. Many of the participants suggested that akin to high schools there should be clerk(s) in primary schools to deal with admissions, MDM and other programmes administration. This will spare HMs to concentrate on academic activities.

2.6. Madrasa's education system: There are 1,333 Madrasas in the state of Bihar (Bihar State Madrasa Education Board 2013). These have been recognised by the Bihar State Madrasa Education Board. Though the state government financially and programmatically supports these Madrasas, there has been a lack of consistent and even-handed policies regarding these institutions. This has created a two-tier system of education in the state. Confusion prevails regarding the medium of instruction, the availability of textbooks in community sensitive languages and the kinds of training provided to these teachers, which are impromptu measures at best. Students of Madrasas also avail government sponsored programmes such as Mid-day Meal, free uniforms, scholarships and solar light, but they receive these facilities not on priority and undue delay is not uncommon.



Madrasa's students

The impact of the confusion and chaos is also obvious on the learning achievement of Madrasa children as reflected by the following learning test results. Tables 2.5 and 2.6 illustrate that 58.33 per cent and 45.95 per cent children studying in grade I in Gaya and Katihar respectively can read nothing. In other words, they cannot even recognise any alphabet. On the other side of the scale, 81.48 per cent and 43.59 per cent children of grade V in Gaya and Katihar respectively cannot read a small story.

Madrasa children: Institutional exclusion

"Government of Bihar's textbooks are not timely available. For Madrasa children the process is further delayed. They receive leftovers, i.e., what remains surplus after distribution in government schools. In the end, our students have some textbooks in Urdu and some in Hindi. We suffer extreme ad-hocism in this regard. Because of the prevailing situation we are losing our students to government schools where books are available before Madrasas do", complained a Madrasa HM in Katihar.

Table 2.5: Gaya: Reading level of children in Madrasas by grade (figures in percentage)

Grade	Can read nothing	Can read letters	Can read words	Can read simple paragraph	Can read small story
Class I	58.33	29.16	10.41	2.08	0.00
Class II	37.50	55.00	5.00	0.00	2.50
Class III	10.81	62.16	13.51	2.70	10.81
Class IV	0.00	42.11	36.84	5.26	15.79
Class V	3.70	7.41	40.74	29.63	18.52
Total	28.07	40.35	17.54	6.43	7.60

Table 2.6: Katihar: Reading level of children in Madrasas by grade (figures in percentage)

Grade	Can read nothing	Can read letters	Can read words	Can read simple paragraph	Can read small story
Class I	45.95	53.15	0.90	0.00	0.00
Class II	28.43	65.69	5.88	0.00	0.00
Class III	9.88	76.54	7.41	3.70	2.47
Class IV	3.77	52.83	7.55	9.43	26.42
Class V	0.00	23.08	5.13	15.38	56.41
Total	23.32	58.29	4.92	3.63	9.84

Likewise, 27.08 per cent and 29.73 per cent children of grade I in Gaya and Katihar respectively are unable to do simplest of arithmetic tasks whatsoever, not even recognising the digits 1 to 9. Situation for grade V is no improvement either. Here 62.96 per cent children in Gaya and 74.36 per cent students in Katihar cannot do any task of division that they should have learnt in grade II.

Table 2.7: Gaya: Arithmetic level of children in Madrasas by grade (figures in percentage)

Grade	Can Do Nothing	Can Recognise Numbers 1- 9	Can Recognise Numbers 10-99	Can Subtract	Can Divide
Class I	27.08	50.00	22.92	0.00	0.00
Class II	25.00	47.50	17.50	7.50	2.50
Class III	18.92	54.05	10.81	8.11	8.11
Class IV	5.26	10.53	42.11	5.26	36.84
Class V	3.70	0.00	22.22	37.04	37.04
Total	18.71	38.01	21.05	9.94	12.28

Table 2.8: Katihar: Arithmetic level of children in Madrasas by grade (figures in percentage)

Grade	Can Do Nothing	Can Recognise Numbers 1- 9	Can Recognise Numbers 11-9 9	Can Subtract	Can Divide
Class I	29.73	65.77	4.50	0.00	0.00
Class II	9.80	70.59	16.67	1.96	0.98
Class III	11.11	59.26	18.52	9.88	1.23
Class IV	3.77	32.08	18.87	13.21	32.08
Class V	0.00	12.82	28.21	33.33	25.64
Total	13.99	55.70	15.03	7.77	7.51

2.7. Multilingual issue among children: Certain children have to cope with two or three dialects or languages at home and school. Also, the presence of regional dialects is very strong, which is largely the main mode of communication. For example, in Gaya, Magahi is the local dialect, and in Katihar it is Angika. Almost all children are encouraged to become bilingual because at home or in peer groups they speak the local dialect. But in schools they read books and follow concepts in Hindi. As local dialects and Hindi inherit commonality of syntax and vocabulary to some extent, which enables children of such background to comprehend Hindi relatively easily. For tribal children,

on the other hand, the scenario is more complicated as we observed in Katihar.

In Katihar, a number of Oraon tribe children are enrolled in schools. They speak Sadri at home, which is their mother tongue. Oraon people do not live in isolation and cohabit with other social groups who speak Angika, the local dialect. When Oraon children, mostly boys, go out to play or communicate in the larger community, they speak Angika. On top of that, in school they are compelled to learn Hindi since it is the main medium of instruction. During data collection it was observed that tribal girls struggle more than boys in the classroom as they tend to play more in their tola and interact less with children from other social groups. Moreover, there is hardly any commonality between Hindi and Sadri, making it more difficult for tribal children to follow Hindi in classrooms. This also can “stunt their cognitive development and adversely affect their self-esteem and self-confidence. This is especially severe in deprived socio-economic situations where there is little exposure to the school language, outside the school” (Jhingran 2009).

The State Council of Educational Research and Training (SCERT), Bihar has introduced five booklets that consist of important and critical words in Maithili, Bhojpuri, Magahi, Angika and Bajjika that a child may use every day (Government of Bihar 2012). It is assumed that these booklets will bridge the language gap between home and school, and help teachers, who belong to other linguistic areas, to get familiar with and use these words in colloquial speech.



Tribal children

Tribal children: Cross-lingual disadvantage?

"We try to learn some words of their language and use these consciously to create and instil a friendly environment, but our learning of tribal words is more through a process of osmosis than by any systematic design", teachers said at a primary school in Katihar that is attended by a sizeable number of tribal children. On the other hand, it was noticeable that these tribal children tend to sit together. Though they did interact with non-tribal children, they preferred each other's company.

2.8. Monitoring and Evaluation: There has been a constant argument on the modus operandi of monitoring and evaluation of the operational and outcome aspects of primary education. Still there is no unambiguous method

Monitoring mechanism: Slow and ignored responsibility

"This programme (SSA) is geared towards only implementation. How effectively is it being implemented and what are the net results, hardly causes much anxiety. You should look at private schools; how much time and energy they invest in analysing their operational and outcome components. We strongly believe that around one-third of whole outlay should be allocated to the monitoring and evaluation activities and not just leftovers. And, officials with monitoring and evaluation responsibilities should not be assigned any implementation activities. Both should be completely separated and there should be no conflict of interests", opined a group of CRC Coordinators in Katihar.

to take up monitoring and evaluation. There are formats, including Chatra Pragati Patrak (Student Progress Report), Shikshak Pragati Patrak (Teacher Progress Report) and Vidyalaya Pragati Patrak (School Progress Report) to assess the operational aspects of schools and how children and teachers are faring to achieve the goal of quality education in schools. But it is questionable whether students and teachers are aware of its significance. During data collection, it was evident that teachers find these formats as another example of bureaucratic wrangling designed to further reduce "the precious little time available for teaching activities".

As mentioned by some CRC Coordinators above, it is generally observed that unlike private schools whose under performance is disapproved and punished by parents by withdrawing children from such schools, government schools do not have any direct mechanism to force quality and performance upon themselves. Though the institution of School Management Committee (SMC) is a step in this direction, the half-hearted government support to SMCs causes the dysfunctional disposition of SMCs and hardly rouses enthusiasm for making schools better performing education centres.

Conclusion: Primary schools in Bihar are confronting many obstacles. In particular, insufficient infrastructure, large numbers of untrained teachers, ambiguous policies on madrasa education and multilingual children have created a sense of anxiety among children, parents and teaching community. At the moment, classrooms are far from inclusive and in the absence of a coherent and realistic policy, primary education faces many uncertainties. Without a robust feedback collection mechanism that goes beyond data compilation and employs analytical explanation and corrective measures, the primary education system in Bihar runs the risk of losing students and faith of parents.

CHAPTER 3

Home and community impacts on learning achievement

Rural Bihar's homes and communities are no longer learning backwater with respect to providing education to their children. Even uneducated parents are increasingly taking enormous efforts, both in terms of time and money, to make amends for their inability or adverse circumstances to receive education. The gradual expansion, intensification and deepening of the system of private tuition shows that parents' intention has gone beyond the ritual of their children's school visits, and they are worried about their learning level.

3.1. First generation learners: Rural Bihar has seen massive growth in the enrolment numbers of children in primary schools. In 2002–03 the number of enrolment for class I to V was 99,91,379 and by 2012–13 the number increased to 1,32,98,802. The ranks of students have been joined by children from marginalised communities in massive numbers.

Field data from both Gaya and Katihar suggest that the ratio of their enrolment in schools has even exceeded their share in the overall population. On the other hand, sizeable number of parents of these children had little or no education. The following tables elaborate the social category of parents who have little or no education and their percentage in the total sample selection. According to Table 3.1, 41.75 per cent fathers in Gaya and 60.62 per

Enrolment is not an issue any more

Reasons of sharp increase in enrolment are manifold. However, broadly the mission to bring all children to schools has been dealt on three fronts. Arranging them into stages or phases will be rather premature, but they complemented and strengthened each other. These are:

1. Sarva Shiksha Abhiyan: The mission was launched in 2002, aimed to cover each child in the age group of 6–14.
2. Mid Day Meal Scheme: The scheme began to be implemented in Bihar since 2005. Initially it only covered standard I–V children but later in 2008 it was extended up to standard VIII.
3. Education welfare Programmes: A number of education welfare programmes have been launched to attract children to schools and encourage them to stay. These include: (a) Free textbooks are provided to students of standard I–VIII; (b) Cash disbursement among school going children for the purchase of school dress under Mukhyamantri Poshak Yojana (Chief Minister School Dress Programme); (c) The provision of scholarship for SC/ST and Backward Caste children through Vidyalaya Chhatravriti Yojana (School Scholarship Programme).

Table 3.1: Social category of children and education status of their father (figures in percentage)

Social category	Gaya		Katihar	
	Never enrolled in school	Enrolled but did not complete primary level	Never enrolled in school	Enrolled but did not complete primary level
SC	45.25	12.49	63.50	8.65
ST	54.55	12.12	62.36	8.72
OBC	20.74	11.96	41.90	10.41
MBC	21.05	12.52	40.58	9.02
Upper Caste	4.93	2.03	17.55	7.35
Muslim	25.29	21.79	58.91	8.64
Total	29.72	12.03	51.58	9.04

cent of that in Katihar have either never enrolled in school or enrolled but did not succeed to complete primary education.

Likewise Table 3.2 indicates that the percentages of that of mothers who never went to schools in Gaya are 82.06 per cent and in Katihar their share is 82.23 per cent. It amply highlights the vast numbers of children who are first generation learners, and mostly depend on schools to attain learning. Of course, in the instance of certain children private tuition has its role to play, but majority children did not have such privileges.

3.2. Private tuition: This apparently innocuous phenomenon is a stark comment on the quality of academic support that children receive at schools. Also known as ‘Shadow Education System’, many critics believe that the process of private tuition may undermine the curriculum that is followed in schools due its own pace, priority and learning sequence. Taken together it can also perpetuate or even exacerbate inequality in classrooms (Bray 2007). Although it can be contested that in each instance the provision of private tuition strengthens or distorts the process of learning achievement, it, nevertheless, has its own share of inputs that cannot be underestimated. Hence, the learning

Assessment Dilemma

A major dilemma that parents of first generation learners face is how to assess their children's performance at schools. Some parents send their children to schools daily, and hope that they will be learning something. Some even sit with their children when later sit to study at home in the evening. Some also shuffle through their children's exercise books and try to notice whether further pages have been filled.

In village Bhindas (Wazirganj) some first generation parents were happy that they were now addressed as Mummy-Papa by their children in place of regional nomenclature. They attribute this change to the schools where the children have learnt these new ways to address their parents.

achievements estimation of this report, or any other, must acknowledge the effect of private tuition. That is why the report focuses extensively on the phenomenon of private tuition and its various dimensions.

Table 3.2: Social category of children and education status of their mother (figures in percentage)⁴

Social category	Gaya		Katihar	
	Never enrolled in school	Enrolled but did not complete primary level	Never enrolled in school	Enrolled but did not complete primary level
SC	74.64	16.22	83.96	6.34
ST	81.82	18.18	87.08	5.65
OBC	63.9	17.74	64.55	10.41
MBC	56.44	21.42	68.44	10.34
Upper Caste	26.67	15.94	31.02	14.69
Muslim	52.53	36.19	77.45	8.91
Total	63.41	18.65	73.44	8.79

Table 3.3: Grade-wise children receiving private tuition (figures in percentage)

Grade	Gaya		Katihar	
	Children receiving private tuition	Children not receiving private tuition	Children receiving private tuition	Children not receiving private tuition
Class I	28.56	71.44	40.99	59.01
Class II	37.14	62.86	46.44	53.56
Class III	40.82	59.18	46.54	53.46
Class IV	50.91	49.09	51.11	48.89
Class V	51.89	48.11	55.26	44.74
Total	40.93	59.07	48.30	51.70

⁴Only two options (Never enrolled in schools and Enrolled but did not complete primary level) are taken into account for table 3.1 and 3.2 to underscore the vast presence of first generation learners.



Private teaching arrangement

As apparent for the Table 3.3, private tuition has gained huge share in the provision of education in the state. 40.93 per cent children in Gaya and 48.30 per cent children in Katihar receive private tuition. Even some of grade I children attend private tuition, and in Katihar their percentage is substantial (40.99 per cent). As expected, both grades and number of children attending private tuition have positive correlation. In other words, more children attend private tuition as they move up in grades.

According to Table 3.4, children from higher stratum of the society attend private tuition more than that of children of SC, ST and Muslims. In Gaya only 29.27 per cent and 9.09 per cent SC and ST children receive private tuition vis-à-vis 62.03 per cent children from Upper Castes. This phenomenon is directly related to resources that need to be diverted from other activities where it could have been used more appropriately; second, it fosters inequality in classrooms further because children from disadvantaged groups are more often than not first generation learners (see Tables 3.1 and 3.2). Their requirement of additional learning support is greater, and what is happening is quite opposite.

Table 3.5 explains the factor of affordability with respect to private tuition. Landless parents are in minority to provide private tuition to their children. On the other hand, parents with more landholding are suitably inclined to let their children avail private tuition.

Tables 3.6 and 3.7 illustrate the relationship between education status of parents and the provision of private tuition for their children. The more educated parents are the more importance they attribute to private tuition. Only exception is at the highest end; graduate parents are less interested in this provision in relation to intermediate or matric parents. We triangulated this phenomenon during

Table 3.4: Social category-wise children receiving private tuition (figures in percentage)

Social Category	Gaya		Katihar	
	Children receiving private tuition	Children not receiving private tuition	Children receiving private tuition	Children not receiving private tuition
SC	29.27	70.73	36.31	63.69
ST	9.09	90.91	38.45	61.55
OBC	49.33	50.67	61.51	38.49
MBC	48.64	51.36	56.23	43.77
Upper Caste	62.03	37.97	61.22	38.78
Muslim	31.91	68.09	43.82	56.18
Total	40.93	59.07	48.30	51.70

Table 3.5: Household land ownership and distribution of children receiving private tuition (figures in percentage)

Land ownership	Gaya		Katihar	
	Children receiving private tuition	Children not receiving private tuition	Children receiving private tuition	Children not receiving private tuition
Landless	33.49	66.51	44.23	55.77
Up to 1 bigha	48.41	51.59	51.99	48.01
> 1- 3 bigha	50.66	49.34	59.58	40.42
> 3 – 5 bigha	57.14	42.86	64.50	35.50
> 5 – 10 bigha	73.68	26.32	68.42	31.58
More than 10 bigha	54.55	45.45	100	0.00
Total	40.93	59.07	48.30	51.70

Gaya: 1 Bigha = 75 Decimals; Katihar: 1 Bigha = 88 Decimals

Table 3.6: Education of father and distribution of children receiving private tuition (figures in percentage)

Education of Father	Gaya		Katihar	
	Children receiving private tuition	Children not receiving private tuition	Children receiving private tuition	Children not receiving private tuition
Never enrolled in school	25.37	74.63	40.10	59.90
Enrolled but did not complete primary level	39.14	60.86	52.74	47.26
Primary	44.93	55.07	56.56	43.44
Matric	55.76	44.24	60.34	39.66
Intermediate	51.10	48.90	67.10	32.90
Graduate & above	45.90	54.10	53.41	46.59
Total	40.93	59.07	48.30	51.70

Table 3.7: Education of mother and distribution of children receiving private tuition (per cent)

Education of Mother	Gaya		Katihar	
	Children receiving private tuition	Children not receiving private tuition	Children receiving private tuition	Children not receiving private tuition
Never enrolled in school	35.06	64.94	43.73	56.27
Enrolled but did not complete primary level	45.84	54.16	54.93	45.07
Primary	54.00	46.00	65.59	34.41
Matric	67.57	32.43	67.46	32.54
Intermediate	46.81	53.19	69.70	30.30
Graduate & above	47.83	52.17	45.00	55.00
Total	40.93	59.07	48.30	51.70

interviews and FGDs. There were two explanations: first, they like to teach their children themselves, and second, they think they are more capable than the available tuition providers and suspect latter's capabilities.

In this report we have also endeavoured to establish significant statistical association between education levels of parents coupled with the provision of tuition and the learning achievement. For brevity sake only grade I data are analysed in the report (for detailed data please refer to Annexe 6). Some of the key findings of grade I are as follows:

- In Gaya, for grade I children — they are expected to read simple and small Hindi words — whose fathers are never enrolled in schools, an alarming 76.97 per cent students can read nothing. In Katihar, the percentage of such children is 66.53 per cent. Chi Square test of independence supports the phenomenon in Katihar as it establishes statistical association between fathers'

education and reading level of children. However, in the case of Gaya, such association is statistically significant for all grades except for Grade I (for details please refer to Annexe 7: Table 1G and Table 1K). The intervention of tuition, indeed, makes situation somewhat better. In Gaya, 47.73 per cent tuition taking children can read letters or words, while the percentage of such children in Katihar is 47.77. These observations can also be found validated by the Chi Square analysis (see Annexe 7: Tables 5G and 5K).

- For uneducated mothers, the findings are no different. In Gaya, 72.78 per cent grade I children can read nothing. The share of Katihar in similar cases is 61.76 per cent. However, in Gaya 45.89 per cent of tuition taking children manages to escape the predicament of 'can read nothing'. The similar percentage for non-tuition taking students is only 21.60 per cent. On the other hand, in Katihar 53.12 per cent of tuition

taking children do read something, but among non-tuition taking children only 29.25 per cent children manage to read anything. Again these observations are also validated in Annexe 7 (Tables 3G and 3K for mothers' education and Tables 5G and 5K for tuition).

- In the field of arithmetic, Grade I children of Gaya — who should be comfortable in recognising numbers up to 99 — and whose fathers did not attend any school, only 6.31 per cent of them can recognise numbers up to 99. Percentage of those who avail tuition the situation is an improved 18.19 per cent. In Katihar overall percentage of such children is a bare 7.65 per cent. With the help of tuition only 14.65 per cent children can be said to have acquired skill akin to grade I. Chi Square test of independence supports the phenomenon in Katihar as it establishes statistical association between fathers' education and arithmetic level of children. However, in the case of Gaya, such association is statistically significant for all grades except for Grade I (for details please refer to Annexe 7: Table 2G and Table 2K). The observations on tuition can also be found validated by the chi square analysis (Annexe 7: Tables 5G and 5K).
- For uneducated mothers, the findings are no different. In Gaya, 8.86 per cent grade I children can recognise numbers up to 99. Katihar's score in this respect is 7.35 per cent. However, tuition helps children slightly to enhance their capabilities. In Gaya, 19.86 per cent of children who take up tuition can recognise numbers up to 99. The percentage of that in Katihar is 13.29 per cent. Again, these observations are also validated in Annexe 7 (Tables 4G and 4K for mothers' education and Tables 5G and 5K for tuition).

3.3. SMC's academic indifference: Members of School Management Committee rarely show an interest in academic activities of the school. They confine their interests mostly to non-academic activities such as the MDM and the School Development Plan. Hence, they can contribute little to the promotion of awareness about the importance of education among community members and inspire parents to send their children to school regularly. However, a major source of the problem is a lack of awareness among SMC members. There has hardly been any training for members. Therefore, they are not aware that their main objective is to improve academic and learning environment in schools, which requires, for the most part, subtle and conceptual thinking. Without a focussed and enabling training it is not possible to develop this orientation. Lack of such training makes SMC members stick to what are tangible goals, i.e. MDM, School Development Plan, and others.

Conclusion: The massive attendance of first generation learners in primary schools coalesced with more problems than our present education policy can come to grips with. The present state of primary education underlines the existing gap between the goals of parents, on the one hand, and policy makers on the other. Policy makers have gone ahead with the implementation of CCE in schools even though parents continue to struggle to provide their children even a minimum learning achievement. This study's findings of children's grossly unsatisfactory learning achievements illustrate why parents increasingly look to private tuition to achieve this simple goal even at huge personal expense and even if school hours clash with timings of private tuition. Ineffective SMCs have further aggravated the situation, denying the community empowerment and inclusive ownership with respect to schools.

CHAPTER 4

Going Forward

Bihar primary education scenario has escaped social homogeneity and embraced social diversity in a remarkable way. Large numbers of children from various social backgrounds have joined the learning movement to enable themselves to become informed and empowered citizens. The learning trajectory, however, is not smooth and welcoming as many of the students are first generation learners from marginalised communities; they have to negotiate the unfamiliar learning territory on their own and many a time they are alone and lost in this endeavour. For many of them going to school, sitting in the classroom and engaging in learning process is not only a cognitive effort but also an emotional involvement. They require critical support and teachers need to develop conscientious symmetry between emotional and cognitive aspects of the learning process.

The report recommends measures to infuse educational equity in schools that are needed for children primarily from marginalised communities who are first generation learners and do not have learning support at school and home. To this end, the report proposes the following measures, which will initiate and reinforce policies, rules and practices of educational equity, thus, enabling children from socially diverse backgrounds to excel their learning achievements.

Development of children social profile: The state government has evolved a commendable Chhatra Pragati Patrak that takes into consideration the academic progress of the students. The patrak, however, does not place the academic performance of a child in the social and economic context. Profiles such as parents education and occupation status, pattern of migration in the family, availability of private tuition, and ethnic and social background of students will help teachers, education officials and community members to assess and analyse the social factors behind the performance of any or category of students. These added information to Chhatra Pragati Patrak will also encourage teachers' effort to acknowledge and respect

the individual and communitarian experiences of children, especially of those who are from SC, ST, minority and multilingual communities.

Embracing diversity and community in teacher education:

In order to take advantage of the usefulness of the assessment and analysis of children' profiles, it is necessary that teachers are trained to face the evolving primary school landscape that has been populated by socially diverse children, many of them first generation learners. Teachers need to be educated about the complexities and skills required in educating such children. Without any academic help available at home first generation learners depend on schools to acquire their learning. Therefore, to ensure level playing field in classrooms teachers need to distinguish between first generation learners and those who are not.

Similarly, Teachers should be given special training to support children who use different dialects/languages in different circumstances. Children should be encouraged and not looked down upon if they are multilingual. Equally, teachers should also sensitise students, who primarily use mainstream language, towards multilingual children.

Extensive training on CCT and CCE process: Both CCT and CCE employ a complex and multi-disciplinary concepts to carry out its implementation. Therefore, teachers should be given much needed trainings on its processes. It is expected that assisted by children profiles and informed training on socially diverse classrooms, teachers will appreciate the necessity and contextual relevance of CCT and CCE.

Strengthening the institution of Tola Sevak: Only optimum infrastructure and capable teachers may not be enough to bring children from Mahadalit communities to schools. Mostly first generation learners, these children and their parents need motivation to appreciate the importance of education. Hence, for such a community mobilisation assignment tola sevaks require regular and customised training programmes. Tola sevaks also have to develop

strategies to discourage child labour among school going children. If they undertake remedial teaching sessions for struggling children, they need to be given very specialised and comprehensive training. The remedial teaching may also dissuade Mahadalit parents from engaging private tutors for additional academic support to their children.

Non-discriminatory treatment to Madrasas: Madrasas are often treated as outside of the education system. They are deprived of equitable facilities by the state, be it distribution of textbooks in Urdu or education promotion schemes or any other support mechanism that government schools enjoy. The unjust process creates a two-tier education system, denying the madrasa stakeholders equal citizenry and legitimises discrimination. There must be even handed treatment to the institution of madrasa, and the state education system should remove all unfairness that accords lower priority to madrasas in its routine and promotional programmes.

Sensitisation and training of SMC members: Learning achievements of children from diverse backgrounds will continue to be undermined until community members, especially SMC members, do not pledge their leadership and ownership of schools. Even appropriately sensitised and trained teachers and tola sevaks require the support of SMC members for the dispensing of quality education.

For, the training of SMC members about their roles and responsibilities should be taken up in earnest. However, training for SMC members of marginalised communities, including women, should be made a priority in schools attended by overwhelming number of marginalised children. In addition, there must be appropriate balance between academic and non-academic activities undertaken by SMC members. Members should be encouraged and sensitised towards academic activities that have been largely neglected by them

Independent education systems assessment study: In addition to the departmental monitoring and evaluation systems, an independent education systems assessment study should be periodically carried out. The study should assess and evaluate the support and cooperation workflow among various educational institutions, whether it is School, SMC, CRC/BRC, block/district education offices or PTEC/ DIET/ SCERT, which are critical in improving the learning achievements of children. The assessment and evaluation should locate the gaps and bottlenecks, and suggest the mechanism to remove such hindrances. It should also anticipate the ever evolving primary school scenario and suggest future strategies and work plans to enable primary schools to successfully compete with private educational institutions.

Need for studies from critical and comparative perspectives: The report is aware of the additional research required for this kind of study. A broadened geographical coverage, involving multiple states will bring much needed comparative perspective that underscores both distinctive and common features of respective primary education programme: its positions of strength and weakness, learning achievement gaps linked to social and economic indicators, related institutional policies and implementation practices, and the location of children from marginalised communities within institutional structures and their intervention strategies.

Besides the above mentioned recommendations arrived at through the key findings of the report, the following steps are critical to support the schools achieve the desired learning level, to provide quality education to children and to infuse educational equity in schools. These are: (1) Provision of optimum infrastructure and teachers that enables and realises principle of “one teacher-one classroom”, required pupil-teacher ratio (30:1 for primary and 35:1 for upper primary classes), and adequate availability of classrooms, boundary wall, toilets (especially for girls) and drinking water facilities in the school premises; (2) Improving and strengthening pre-service and in-service teacher training competence, building teacher education capacity at all levels, and developing sympathetic and attuned curriculum that are in sync with the prevalent competency of most teachers; (3) Less involvement and distraction of teachers in non-academic programmes and activities, including Mid-day meal programme, education promotion schemes and excessive paper works that are not strictly related with school based academic activities; and (4) Strengthened monitoring and evaluation apparatus of the state education system based on steady and coherent feedback mechanism that goes beyond the format filling exercises and gather information from grassroots stakeholders (e.g. teachers, parents, community members) by means of face to face contacts.

It is significant that the Government of Bihar, Dept. of Education, its Educational Administration as well as Research and Training institutions of Bihar have been going forward at levels of policies, rules and their implementation to improving the learning environment of the schools and making education inclusive for children with socially diverse backgrounds. It is the need of the hour to address the **critical gaps** and **challenges** in the implementations of these policies and provisions in the light of the **key findings** and the **recommendations** of the report.

It is hoped that these initiated or strengthened steps will improve the classroom performance of socially diverse children, and boost up the learning achievements of school children to an acceptable and satisfactory level.

References

- Alexander, Robin. 1995. *Versions of Primary Education*. London: Routledge.
- ASER. 2014. *Annual Status of Education Report (Rural) 2013*. New Delhi: ASER Centre.
- Bihar Education Project. 2012. *Satat evam Vyapak Mulyankan*: Patna.
- Bray, Mark. 2007. *The Shadow Education System: Private Tutoring and its Implications for Planners*. Paris: UNESCO: International Institute for Educational Planning.
- Brighouse, Harry. 2006. *On Education*. London: Routledge.
- De, Anuradha, Reetika Khara, Meera Samson, A.K. Shiva Kumar. *Probe Revisited: A Report on Elementary Education in India*. New Delhi: Oxford University Press.
- Deshkal Society. 2012. *Enhancing School Effectiveness through Inclusive Teaching and Learning: An Innovative Action Research in Two Rural Government Primary Schools in Gaya District of Bihar*. New Delhi: Deshkal Publication.
- DISE. 2014. *Elementary Education in India (Rural India): Analytical Report 2012-13*. New Delhi: NUEPA.
- DISE. 2014. *Elementary Education in India: State Report Cards 2012-13*. New Delhi: NUEPA.
- Government of Bihar. 2012. *Mission Gunvatta: Samjhe, Shikhe* (Dvitiya Charan). Patna: Department of Education.
- Government of Bihar. N.A. *Utthan Guidelines*. Patna: Bihar Education Project Council.
- Jhingran, Dhir. 2009. 'Hundreds of Home Languages in the Country and many in most Classrooms: Coping with Diversity in Primary Education in India.' In Skutnabb-Kangas, Tove, Robert Phillipson, Ajit K. Mohanty and Minati Panda (eds.). *Social Justice Through Multilingual Education*. Bristol: Multilingual Matters.
- Johnson, Sandra. 2012. *Assessing Learning in the Primary Classroom*. London: Routledge.
- Majumdar, Manabi and Jos Mooij. 2011. *Education and Inequality in India: A Classroom View*. London: Routledge.
- NUEPA. 2014. *Elementary Education in Rural India: Where do We Stand*. New Delhi: NUEPA.
- PROBE Team. 1999. *Public Report on Basic Education in India*. New Delhi: OUP.
- Rosner, B. 2000. *Fundamentals of Biostatistics*. Duxbury: Thomson Learning.
- Singh, Santosh. 2014. "Bihar may ease 75 per cent school attendance provision for beneficiaries". *Indian Express*, 30 June.
- Sleeter, Christine, Sahashi Bhushan Upadhyay, Arvind K. Mishra, Sanjay Kumar (eds). 2012. *School Education, Pluralism and Marginality: Comparative Perspectives*. New Delhi: Orient BlackSwan

ANNEXE 7

Chi square test for independence

To test for significant association between categorical variables, chi square test for independence is applied.

Here, the list of categorical variables are-

Resources-

- A. Father's Education- the variable has 6 levels.
- B. Mother's Education-the variable has 6 levels.
- C. Availability of Tuition –the variable has 2 levels

Learning Outcomes-

- D. Reading level of Children-the variable has 5 levels
- E. Arithmetic level of Children-the variable has 5 levels.

The objective of the test for independence is to ascertain the association between the variables listed under resources available to children and learning outcomes. The hypotheses to be tested are stated below-

1. A and D
Ho: A and D are independent
Ha: A and D are not independent.
2. A and E
Ho: A and E are independent
Ha: A and E are not independent.
3. B and D
Ho: B and D are independent
Ha: B and D are not independent.
4. B and E
Ho: B and E are independent
Ha: B and E are not independent.
5. C and D
Ho: C and D are independent
Ha: C and D are not independent.
6. C and E
Ho: C and E are independent
Ha: C and E are not independent.

The null (Ho) hypothesis in above cases states that knowing the levels of resource variables A, B and C does not help to predict the levels of learning outcome variables D and E.

The alternate (Ha) hypothesis in above cases states that knowing the levels of resource variables A, B and C can help to predict the levels of learning outcome variables D and E. Here, it is to be noted that alternate hypotheses do not necessarily claim any casual relationship between the variables.

The hypotheses are tested at 95% significance level. Ho will be accepted in the event of p-value being more than significance level at 95% (0.05) and vice-versa.

The resource variables A, B and C are entered as rows and the outcome variables are entered as columns in the OpenEpi software, Version 3 to compute the values of Chi square test statistic and p-value. The test is presented in the Tables below-

1. A and D
Row Variable (A) - Father's Education with 6 levels
Column Variable (D) - Reading level of Children with 5 levels
Degrees of Freedom= (levels of row variable-1) X (levels of column variable-1)
= (6-1) X (5-1) =20

Table-1G: Father's Education and Reading level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	213	0.000	Ho not accepted
Grade-wise			
Grade I	31.21	0.053	Ho accepted
Grade II	67.35	0.000	Ho not accepted
Grade III	84.61	0.000	Ho not accepted
Grade IV	53.54	0.000	Ho not accepted
Grade V	54.27	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	57	0.000	Ho not accepted
Schedule Tribes (ST)	Cannot be calculated#		
Other Backward Castes (OBC)	75.77	0.000	Ho not accepted
Most Backward Castes (MBC)	50.14	0.000	Ho not accepted
Upper Castes (UC)	43.05	0.002	Ho not accepted
Muslims	43.05	0.002	Ho not accepted
#20 cells have expected values < 1 and 97% cells have expected values < 5			

As depicted by Table- 1G, the p-values obtained for Chi Square statistic with degrees of freedom 20 are less than that for 95% significance level (0.05) for all statistics except for children of

Grade I and Schedule Tribe. Chi Square for Schedule Tribe children could not be calculated as the frequency distribution and corresponding expected values do not meet Cochran's criteria (Rosner 2000, 395). In the case of Grade I children, Ho is accepted at 95% significance level and cannot be accepted at 90% significance level. The analysis plan considers only 95% significance level for the sake of uniformity. Thus, except for Grade I and Schedule Tribe children, there is significant association between father's level of education and reading levels of children at 95% significance level.

Table-1K: Father's Education and Reading level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	360.8	0.000	Ho not accepted
Grade-wise			
Grade I	85.88	0.000	Ho not accepted
Grade II	149.1	0.000	Ho not accepted
Grade III	145	0.000	Ho not accepted
Grade IV	131	0.000	Ho not accepted
Grade V	68.46	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	81.39	0.000	Ho not accepted
Schedule Tribe (ST)	37.56	0.010	Ho not accepted
Other Backward Castes (OBC)	115.4	0.000	Ho not accepted
Most Backward Castes (MBC)	31.13	0.053	Ho accepted
Upper Castes (UC)	75.19	0.000	Ho not accepted
Muslims	91.43	0.000	Ho not accepted

Table-1K depicts that Ho can be accepted at 95% significance level only for MBC children. However, as stated above Ho can be considered to be not accepted at 90% significance level for these children also. For all other groups, father's levels of education are significantly related with the levels of reading of children of Katihar.

2. A and E

Row Variable (A) - Father's Education with 6 levels
Column Variable (E) - Arithmetic level of Children with 5 levels

Degrees of Freedom= (levels of row variable-1) X (levels of column variable-1)

$$= (6-1) \times (5-1) = 20$$

Table-2G: Father's Education and Arithmetic level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	179.15	0.000	Ho not accepted
Grade-wise			
Grade I	30.43	0.060	Ho accepted
Grade II	64.53	0.000	Ho not accepted
Grade III	58.5	0.000	Ho not accepted
Grade IV	62.56	0.000	Ho not accepted
Grade V	62.29	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	57.19	0.000	Ho not accepted
Schedule Tribes (ST)	Cannot be calculated#		
Other Backward Castes (OBC)	66.99	0.000	Ho not accepted
Most Backward Castes (MBC)	23.45	0.267	Ho accepted
Upper Castes (UC)	18.06	0.580	Ho accepted
Muslims	19.54	0.480	Ho accepted
#18 cells have expected values < 1 and 97% cells have expected values < 5			

Table-2G has same explanations as that of Table-1G.

Table-2K: Father's Education and Arithmetic level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	249	0.000	Ho not accepted
Grade-wise			
Grade I	58.36	0.000	Ho not accepted
Grade II	85.9	0.000	Ho not accepted
Grade III	98.14	0.000	Ho not accepted
Grade IV	102.5	0.000	Ho not accepted
Grade V	47.28	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	76.96	0.000	Ho not accepted
Schedule Tribes (ST)	26.23	0.158	Ho accepted
Other Backward Castes (OBC)	66.85	0.000	Ho not accepted
Most Backward Castes (MBC)	38.19	0.008	Ho not accepted
Upper Castes (UC)	55.38	0.000	Ho not accepted
Muslims	65.42	0.000	Ho not accepted

For Table-2K, except for Schedule Tribe children, father's levels of education are significantly related to arithmetic levels of children.

3. B and D
 Row Variable (B) - Mother's Education with 6 levels
 Column Variable (D) - Reading level of Children with 5 levels
 Degrees of Freedom = (levels of row variable-1) X (levels of column variable-1)
 = (6-1) X (5-1) = 20

Table-3G: Mother's Education and Reading level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	133.2	0.000	Ho not accepted
Grade-wise			
Grade I	64.41	0.000	Ho not accepted
Grade II	82.91	0.000	Ho not accepted
Grade III	59.51	0.000	Ho not accepted
Grade IV	39.08	0.006	Ho not accepted
Grade V	41.85	0.003	Ho not accepted
Social Category wise			
Schedule Castes (SC)	28.69	0.094	Ho accepted
Schedule Tribes (ST)	Cannot be calculated#		
Other Backward Castes (OBC)	43.6	0.001	Ho not accepted
Most Backward Castes (MBC)	40.22	0.004	Ho not accepted
Upper Castes (UC)	668.85	0.000	Ho not accepted
Muslims	61.39	0.000	Ho not accepted
#22 cells have expected values < 1 and 90% cells have expected values < 5			

Table-3G presents significant association between mother's levels of education and reading levels of children except for Schedule Castes and Schedule Tribes. For Schedule Castes, the association can be significant at 90% significance level while for Schedule Tribes, Chi Square statistic cannot be computed as the corresponding expected values do not match Cochran's criteria. While there are two groups not having significant association between mother's education and reading levels in Gaya, all groups in Katihar have significant association for different levels of these variables

Table-3K: Mother's Education and Reading level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	320.9	0.000	Ho not accepted
Grade-wise			
Grade I	110.3	0.000	Ho not accepted
Grade II	108.5	0.000	Ho not accepted
Grade III	67.17	0.000	Ho not accepted
Grade IV	108.5	0.000	Ho not accepted
Grade V	67.17	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	41.98	0.003	Ho not accepted
Schedule Tribes (ST)	34.47	0.023	Ho not accepted
Other Backward Castes (OBC)	83.73	0.000	Ho not accepted
Most Backward Castes (MBC)	53.2	0.000	Ho not accepted
Upper Castes (UC)	46.93	0.001	Ho not accepted
Muslims	94.56	0.000	Ho not accepted

4. B and E
 Row Variable (B) - Mother's Education with 6 levels
 Column Variable (E) - Arithmetic level of Children with 5 levels
 Degrees of Freedom = (levels of row variable-1) X (levels of column variable-1)
 = (6-1) X (5-1) = 20

Table-4G: Mother's Education and Arithmetic level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	108.18	0.000	Ho not accepted
Grade-wise			
Grade I	64.41	0.000	Ho not accepted
Grade II	82.9	0.000	Ho not accepted
Grade III	59.51	0.000	Ho not accepted
Grade IV	39.08	0.006	Ho not accepted
Grade V	39.14	0.006	Ho not accepted

Social Category wise			
Schedule Castes (SC)	24.85	0.207	Ho accepted
Schedule Tribes (ST)	Cannot be calculated#		
Other Backward Castes (OBC)	44.25	0.001	Ho not accepted
Most Backward Castes (MBC)	33.26	0.031	Ho not accepted
Upper Castes (UC)	30.55	0.061	Ho accepted
Muslims	13.85	0.830	Ho accepted
#22 cells have expected values < 1 and 93% cells have expected values < 5			

Mother's education levels have almost same association with arithmetic levels as they have with reading levels with one exception in the case of Schedule Caste children in Gaya. Here, the Ho is accepted for all levels of significance for the Schedule Caste children.

Table-4K: Mother's Education and Arithmetic level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	241.8	0.000	Ho not accepted
Grade-wise			
Grade I	69.2	0.000	Ho not accepted
Grade II	90.25	0.000	Ho not accepted
Grade III	118.2	0.000	Ho not accepted
Grade IV	100.7	0.000	Ho not accepted
Grade V	61.95	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	39.61	0.006	Ho not accepted
Schedule Tribes (ST)	33.87	0.027	Ho not accepted
Other Backward Castes (OBC)	80.27	0.000	Ho not accepted
Most Backward Castes (MBC)	34.57	0.022	Ho not accepted
Upper Castes (UC)	39	0.007	Ho not accepted
Muslims	64.67	0.000	Ho not accepted

5. C and D
 Row Variable (C) – Availability/access to Tuition with 2 levels
 Column Variable (D) - Reading level of Children with 5 levels
 Degrees of Freedom= (levels of row variable-1) X (levels of column variable-1)
 = (2-1) X (5-1) =4

Table-5G: Tuition and Reading level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	405.6	0.000	Ho not accepted
Grade-wise			
Grade I	77.1	0.000	Ho not accepted
Grade II	46.37	0.000	Ho not accepted
Grade III	82.38	0.000	Ho not accepted
Grade IV	55.96	0.000	Ho not accepted
Grade V	42.55	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	152.1	0.000	Ho not accepted
Schedule Tribes (ST)	6.78	0.147	Ho accepted
Other Backward Castes (OBC)	134.9	0.000	Ho not accepted
Most Backward Castes (MBC)	13.5	0.009	Ho not accepted
Upper Castes (UC)	23.12	0.000	Ho not accepted
Muslims	43.8	0.000	Ho not accepted

Table- 5G shows significant association between tuitions and reading levels of children except for Schedule Tribe children from Gaya. In the case of Katihar, the significance association is not there for MBC and children from Upper castes.

Table-5K: Tuition and Reading level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	382.5	0.000	Ho not accepted
Grade-wise			
Grade I	56.69	0.000	Ho not accepted

Grade II	39.79	0.000	Ho not accepted
Grade III	101.5	0.000	Ho not accepted
Grade IV	131.4	0.000	Ho not accepted
Grade V	53.15	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	114.3	0.000	Ho not accepted
Schedule Tribes (ST)	24.85	0.000	Ho not accepted
Other Backward Castes (OBC)	127.3	0.000	Ho not accepted
Most Backward Castes (MBC)	4.61	0.329	Ho accepted
Upper Castes (UC)	8.77	0.067	Ho accepted
Muslims	71.93	0.000	Ho not accepted

6. C and E

Row Variable (C) – Availability/access to Tuition with 2 levels

Column Variable (E) - Arithmetic level of Children with 5 levels

Degrees of Freedom= (levels of row variable-1) X (levels of column variable-1)
= (2-1) X (5-1) =4

Table-6 G: Tuition and Arithmetic level in Gaya

Classification	Chi Sq Statistic	p-value	Result
Total	454.9	0.000	Ho not accepted
Grade-wise			
Grade I	63.59	0.000	Ho not accepted
Grade II	62.23	0.000	Ho not accepted
Grade III	87.97	0.000	Ho not accepted
Grade IV	84.23	0.000	Ho not accepted
Grade V	54.27	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	154.3	0.000	Ho not accepted

Schedule Tribes (ST)	3.18	0.528	Ho accepted
Other Backward Castes (OBC)	134.8	0.000	Ho not accepted
Most Backward Castes (MBC)	28.66	0.000	Ho not accepted
Upper Castes (UC)	39.57	0.000	Ho not accepted
Muslims	49.67	0.000	Ho not accepted

The interpretation of Table-6G is same as that of Table-5G, meaning the same kind of significant association between tuition and reading levels and that of tuition and arithmetic levels with same exceptions for Schedule Tribe children.

Table-6K: Tuition and Arithmetic level in Katihar

Classification	Chi Sq Statistic	p-value	Result
Total	397.8	0.000	Ho not accepted
Grade-wise			
Grade I	52.05	0.000	Ho not accepted
Grade II	52.5	0.000	Ho not accepted
Grade III	80.17	0.000	Ho not accepted
Grade IV	138.7	0.000	Ho not accepted
Grade V	83.5	0.000	Ho not accepted
Social Category wise			
Schedule Castes (SC)	104.3	0.000	Ho not accepted
Schedule Tribes (ST)	43.01	0.000	Ho not accepted
Other Backward Castes (OBC)	103.1	0.000	Ho not accepted
Most Backward Castes (MBC)	24.18	0.000	Ho not accepted
Upper Castes (UC)	14.43	0.006	Ho not accepted
Muslims	97.41	0.000	Ho not accepted

Table-6K indicates significant association between tuition and arithmetic levels of children in Katihar.

There appears a general trend for non-significant association for Schedule Tribe children in most of the cases. This may be due to small sample size drawn for these children. On the whole, the resource variables are significantly associated with the outcome variables.

Summary

Chi Square Test for Independence helps in judging statistical association between categorical variables having two or more than two values. The existence of statistical association implies that we can predict the values of one categorical variable if we know the values of the other variable. Chi Square Test for Independence does not provide us causal association between variables. Causal associations are judged using regression analysis which helps in finding factor(s) determining one variable. Here, chi square helps in establishing whether the two variables are independent or not.

For example, as we observe from multivariate tables,

In Gaya 47.73% Grade I children, whose fathers are never enrolled in school but provide private tuition, can read something

But Table-1G shows that chi square values for father's education and reading level of children are independent (the null hypothesis is accepted as chi square is not significant at 95% level). Table-5G

shows that chi square values for tuition and reading level are not independent (the null hypothesis is not accepted as chi square is significant at 95% level).

If we take the results from both the tables, the above statement in italics can be substantiated.

The Table-N below shows the list of variables for which chi square values are either non-significant or cannot be calculated. Except this list for all variables in Tables-1G, 2G, 3G, 4G and 5G , and Tables-1K, 2K, 3K, 4K and 5K are statistically associated as chi square for them is significant at 95% level. The Table-N consists of most of the entries from Gaya and four from Katihar. So, Katihar performs better as far as statistical association between variables is concerned, except for the four cases mentioned in Table-N. The social classification of variables shows the most number of non- significant cases as children belonging to Schedule Tribe display most numbers of non-significant associations. In such cases, sample of the children is small so chi square could not be calculated in most of the cases.

Table-N: Variables with no significant statistical association

Gaya				
Row Variable	Column Variable	Classification/level	Chi Square	Source Table
Father's education	Reading level of children	Grade I	Not significant	Table-1G
Father's education	Reading level of children	Schedule Tribes	Cannot be calculated	Table-1G
Father's education	Arithmetic level of children	Grade I	Not significant	Table-2G
Father's education	Arithmetic level of children	Schedule Tribes	Cannot be calculated	Table-2G
Father's education	Arithmetic level of children	MBC	Not significant	Table-2G
Father's education	Arithmetic level of children	Upper Castes	Not significant	Table-2G
Father's education	Arithmetic level of children	Muslims	Not significant	Table-2G
Mother's education	Reading level of children	Schedule Castes	Not significant	Table-3G
Mother's education	Reading level of children	Schedule Tribes	Cannot be calculated	Table-3G
Mother's education	Arithmetic level of children	Schedule Castes	Not significant	Table-4G
Mother's education	Arithmetic level of children	Schedule Tribes	Cannot be calculated	Table-4G
Mother's education	Arithmetic level of children	Upper Castes	Not significant	Table-4G
Mother's education	Arithmetic level of children	Muslims	Not significant	Table-4G
Tuition	Reading level of children	Schedule Tribes	Not significant	Table-5G
Tuition	Arithmetic level of children	Schedule Tribes	Not significant	Table-6G
Katihar				
Father's education	Reading level of children	MBC	Not significant	Table-1K
Father's education	Arithmetic level of children	Schedule Tribes	Not significant	Table-2K
Tuition	Reading level of children	MBC	Not significant	Table-5K
Tuition	Reading level of children	Upper Castes	Not significant	Table-5K

ANNEXE 8

Interview schedule for household survey of socio-economic background and learning achievement of children

1. Name of the Child.....
2. Father's name and address
3. Grade in which child is enrolled in school.....
4. Age (in years).....
5. Gender: i) Boy 1
 ii) Girl..... 2
6. Name of the school.....
7. Category of the school
 i) Primary..... 1
 ii) Primary with upper primary..... 2
8. Nature of the school
 i) Common Govt. School..... 1
 ii) Government managed Madrasa..... 2
9. Cluster Resource Centre.....
10. Block.....
11. Social Category:
 i) SC..... 1
 ii) ST 2
 iii) OBC 3
 iv) MBC..... 4
 v) Upper Caste..... 5
 vi) Muslim..... 6
12. What is the highest educational level completed by father?
 i) Never enrolled in school..... 1
 ii) Enrolled but did not complete
 primary level (Grade V) 2
 iii) Primary (Grade V)..... 3
 iv) Matric (Grade X)..... 4
 v) Intermediate (Grade XII)..... 5
 vi) Graduate..... 6

vii) Postgraduate	7
viii) Any other	8
13. What is the highest educational level completed by mother?	
i) Never enrolled in school.....	1
ii) Enrolled but did not complete primary level (Grade V)	2
iii) Primary (Grade V).....	3
iv) Matric (Grade X).....	4
v) Intermediate (Grade XII).....	5
vi) Graduate.....	6
vii) Postgraduate	7
viii) Any other	8
14. Area of agricultural land owned by the household	
i) Landless.....	1
ii) upto 1 bigha	2
iii) > 1- 3 bigha.....	3
iv) > 3 – 5 bigha	4
v) > 5 – 10 bigha	5
vi) More than 10 bigha	6
15. What is the main occupation of father?	
i) Casual Labour	1
ii) Attached agricultural labour	2
iii) Cultivator	3
iv) Artisan.....	4
v) Private job.....	5
vi) Govt. job	6
vii) Business.....	7
viii) Self employment	8
ix) Unemployed.....	9
x) Any other (specify)	10
16. What is the main occupation of mother?	
i) Casual Labour	1
ii) Attached Agricultural Labour	2
iii) Cultivator	3
iv) Domestic help	4
v) Artisan.....	5
vi) Private regular employment	6
vii) Govt. employment.....	7
viii) Business.....	8
ix) Self employment	9
x) Housewife	10
xi) Unemployed.....	11
xii) Any other (specify)	12

17. Did any of the parents migrate for work during the last one year?
- i) Yes 1
 - ii) No..... 2
18. If yes, what was the place of migration?
- i) Within the district..... 1
 - ii) Within the state 2
 - iii) Outside the state..... 3
 - iv) Not applicable 99
19. What was the duration of migration during the last one year?
- i) Less than 3 months..... 1
 - ii) 3–6 months..... 2
 - iii) More than 6 months..... 3
 - iv) Not applicable 99
20. Did the child also migrate along with parents?
- i) Yes 1
 - ii) No..... 2
 - iii) Not Applicable 99
21. Does the child receive paid private tuition?
- i) Yes 1
 - ii) No..... 2
22. If yes, who gives the private tuition?
- i) Govt. school teacher 1
 - ii) Private tutor..... 2
 - iii) Not applicable 99
23. What is the learning level of the child in reading (Hindi) (Use the enclosed test sheet and circle the highest level only)
- i) Can read nothing 1
 - ii) Can read letters 2
 - iii) Can read words..... 3
 - iv) Can read simple paragraph 4
 - v) Can read small story 5
24. What is the learning level of the child in mathematics (Use the enclosed test sheet and circle the highest level only)
- i) Can do nothing 1
 - ii) Can recognize numbers 1-9 2
 - iii) Can recognize numbers 11-99..... 3
 - iv) Can do subtractions with borrowing 4
 - v) Can do divisions..... 5
25. Observations of the interviewer:
26. Name & signature of interviewer:

Date:

Learning test tools

पढ़ने की जाँच

जाँच पत्र - 1

अक्षर	शब्द
म र ड	गाना खुश
ह च	मौसी
ल ब न	पैर झोला
क य	आलू खेत
	किला
	आग मोर
पाँच पूछें, 5 में से 4 सही होने चाहिए ।	पाँच पूछें, 5 में से 4 सही होने चाहिए ।

पढ़ने की जाँच

जाँच पत्र - 1

कहानी	अनुच्छेद
<p>राजू नाम का एक लड़का था । उसकी एक बड़ी बहन व एक छोटा भाई था । उसका भाई गाँव के पास के विद्यालय में पढ़ने जाता था। वह खूब मेहनत करता था । उसकी बहन बहुत अच्छी खिलाड़ी थी । उसे लंबी दौड़ लगाना अच्छा लगता था । वे तीनों रोज साथ - साथ मौज - मस्ती करते थे ।</p>	<p>रानी नदी किनारे रहती है । नदी में बहुत मछलियाँ हैं । रानी उनको दाना देती है । वे सब मजे से दाना खाती हैं ।</p>
	<p>काले बादल छाए हैं । तेज बारिश हो रही है । मोर भी नाच रहा है । सब नाच देख रहे हैं ।</p>

गणित की जाँच

जाँच पत्र - 1

अंक पहचान (1 - 9)

4

7

1

5

3

8

6

2

पाँच पूछें, जिनमे चार सही होने चाहिए।

गणित की जाँच

जाँच पत्र - 1

संख्या पहचान (11 - 99)

43

81

64

19

58

37

20

76

92

26

पाँच पूछें, जिनमे चार सही होने चाहिए।

गणित की जाँच

जाँच पत्र - 1

घटाव

54

— 38

82

— 35

73

— 28

53

— 27

48

— 19

61

— 44

42

— 26

64

— 45

दो करें, दोनो ही सही होने चाहिए।

गणित की जाँच

जाँच पत्र - 1

भाग

$$3 \left. \vphantom{\begin{array}{c} 3 \\ 5 \\ 6 \\ 7 \end{array}} \right) 684 \left(\right.$$

$$5 \left. \vphantom{\begin{array}{c} 3 \\ 5 \\ 6 \\ 7 \end{array}} \right) 817 \left(\right.$$

$$6 \left. \vphantom{\begin{array}{c} 3 \\ 5 \\ 6 \\ 7 \end{array}} \right) 945 \left(\right.$$

$$7 \left. \vphantom{\begin{array}{c} 3 \\ 5 \\ 6 \\ 7 \end{array}} \right) 885 \left(\right.$$

एक करो, जो सही होना चाहिए।



Deshkal Society, since 1995, has initiated and innovated research, advocacy and grassroots interventions to further the inclusion and equity of marginalised communities in a democratised mainstream society. Issues of social exclusion/ inclusion, marginality and diversity in education, land rights and entitlements, and culture and sustainable livelihoods are the main focus where we continue to develop a conceptual understanding of the mainstream discourse and how it has evolved to limit and marginalise the underprivileged communities.



This report is an outcome of a study undertaken by Deshkal Society in two districts of Bihar, Gaya and Katihar, with the intention of tracking the present primary education situation in rural Bihar, India in view of large, recent increases in enrolment numbers. The increase which has mainly been attributed to first generation learners from marginalised communities has also created socially diverse classrooms. The study documents the children's social and economic background, how these factors influence the attitude of parents and children towards education. The study attempts to link, among others, the level of parental education, economic status and private tuition to achievement.

The report has revealed appalling depths of poor reading level of children. Moreover, the poorer and socially deprived sections have been badly affected. The report also catalogues predicaments that cause non-encouraging ambience, resulting in poor learning achievements of children. The present state of primary education underlines the yawning gap between the aspirations of parents and policy makers on the other hand.

The report recommends measures to infuse educational equity in schools that are needed for children primarily from marginalised communities who are first generation learners and do not have learning support at school and home. To this end, the report proposes the following measures, which will initiate and reinforce policies, rules and practices of educational equity, thus, enabling children from socially diverse backgrounds to excel their learning achievements.

- Development of children social profile;
- Embracing diversity and community in teacher education;
- Extensive training on CCT and CCE process;
- Strengthening the institution of Tola Sevak;
- Non-discriminatory treatment to Madrasas;
- Sensitisation and training of SMC members;
- Independent education systems assessment study; and
- Need for further studies from critical and comparative perspectives.

It is significant that the Government of Bihar, Department of Education, its Educational Administration as well as Research and Training institutions have been going forward at levels of policies, rules and their implementation to improving the learning environment of the schools and making education inclusive for children with socially diverse backgrounds. It is the need of the hour to address the critical gaps and challenges in the implementations of these policies and provisions in the light of the key findings and the recommendations of the report.

The report is available at www.deshkalindia.org

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