Indian Educational Review

RESEARCH PAPERS

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CONTENTS

EDITORIAL

The current issue of *Indian Educational Review* contains five research papers/articles focussing on teacher training on performance in English at the primary level, qualities of an ideal teacher, influence of school leadership on student's learning in Indian context, mainstreaming out of school children with community support, and representation of dalits in higher education. It also carries two research notes on in-service teacher education programmes and students' drawing and labelling skills in science at the elementary level. There are two summaries of ERIC projects related to inclusive education at the elementary level in north-eastern region and therapeutic story making intervention on reading skill and academic resilience.

The first paper 'Impact of teacher training on performance in English at the primary level: An untold story of West Bengal' by Debarshi Mandal and Debasish Sarkar provides a framework on continuous teachers' training and orientation which is an important instrument for quality education at the primary level. The paper evaluates teaching English project at the primary level in West Bengal based on the performance of the students who have appeared for the centrally conducted evaluations, i.e., External Evaluation (EE) and Diagnostic Achievement Test (DAT). In the second paper, 'Ideal teacher qualities as perceived by high-ability students from low socio-economic backgrounds: A study based in West Bengal' by Paromita Roy and Surabhi Dasgupta examines the perceptions of underprivileged high-ability middle school students regarding the qualities they considered 'best' in their favourite science teachers. It is extremely important that an ideal teacher values their student's problems and limitations rather than the fact that he or she is a domain expert. The third paper by N. Mythili on 'Does school leadership matter for student learning in India? A case study of Sikkim' explores the school leadership practices in Sikkim which mainly focus both on teacher professional development and students achieving higher school quality. The fourth paper by Kamal Kanta Tripathy, 'Mainstreaming out of school children with community support: A success story' reiterates that education for all will be possible only if parents and guardians realise the need and importance of education for each child and facilitate him/her to acquire knowledge and skills essential to earn better livelihood. They also stress the need to sensitise parents that child labour does not eradicate poverty. It rather perpetuates poverty. The last paper on 'Representation of dalits in higher education: A case study of Kajipur village in Uttar Pradesh' by Subhash Kumar and Noklenyangla attempts to analyse the different

socio-economic factors which affect the access to higher education. The main objective of the paper is to understand the dalit students' participation in higher education, especially the girls of Kajipur village in Uttar Pradesh.

The issue carries two research notes. The first one is 'In-service teacher education programmes: Issues and challenges' by Himanshi Piplani and Shruti Chopra. The second one is 'An analysis of students' drawing and labelling skills in science at the elementary level' by Debarati Dhar and Gowramma I.P.

The summaries of two research projects conducted under financial support by ERIC are also reported. These are — i) A study on implementation of inclusive education at the elementary level in the north-eastern region by Basansy Kharlukhi and ii) Effect of therapeutic story making intervention on reading skills and academic resilience.

The *Indian Educational Review* focusses on enriching the discipline of education by disseminating findings of educational research, providing opportunities for exchanging research experience among fellow researchers, motivating academicians and providing inputs to all those involved in policy making and planning. Contributions of academicians, researchers, and freelancer writers are cordially invited for the next issue. We seek your suggestions and views on the improvement of the journal and research initiatives.

Academic Editor

Impact of Teacher Training on Performance in English at the Primary Level
An Untold Story of West Bengal

DEBARSHI MANDAL* AND DEBASISH SARKAR**

ABSTRACT

Continuous teachers' training and orientation is an important instrument for quality education at the primary level. This paper attempts to study the impact of teachers' training programme based on the experience in West Bengal. In West Bengal, a general consensus was developed on the necessity of imparting quality teaching learning of English at the primary level during the beginning of 21st century when English was reintroduced after a long gap of time. As a result, a convergent, coordinated and long-term continuous effort was made with respect to teachers' training in English. Based on the analysis of performance of the students in External Evaluation (EE) and Diagnostic Achievement Test (DAT) at the end of Classes II and III, respectively, conducted by West Bengal Board of Primary Education (WBBPE), it was observed that only due to the massive training programme, the performance of the students was comparatively better in English as compared to all other subjects.

Keywords: *External Evaluation (EE), Diagnostic Achievement Test (DAT), West Bengal Board of Primary Education (WBBPE), Minimum Level of Learning (MLL).*

Background of the Study

Free and compulsory education for all children up to the age of 14 years was the Constitutional commitment in India (Article 45). At the time of the adoption of the Constitution in 1950, the aim was to achieve the goal of Universalisation of Elementary

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Education (UEE) within the next 10 years, i.e., by 1960. Keeping in view the educational facilities available in the country at that time, the goal was far too ambitious to be achieved within a short span of 10 years. To facilitate the achievement of UEE goal, the National Council of Educational Research and Training (NCERT), the National Institute of Educational Planning and Administration (NIEPA) and many other institutions were set up in the 1960s as the research, training and resource centres.

Various education commissions had emphasised the importance of teachers' role and their proper training to equip them with basic skills of teaching. The Kothari Commission (1964), National Commission on Teachers (1985) and both the National Policy on Education (NPE) 1986 and the Programme of Action (POA), 1992, emphasised the importance of teachers' education.

The scheme to strengthen teachers' education by establishing quality training institutions such as, the District Institutes of Education and Training (DIET) was initiated in 1987. The scheme proposed to create viable institutional, academic and technical resource base for orientations, training and continuous up-gradation of knowledge, competence and pedagogical skills of school teachers in the country.

Along with the pre-service training, in-service teacher training at the primary level plays a crucial role, particularly in terms of quality. As a profession, teaching is the most dynamic than any other profession in the world. Every teacher needs to be updated, well informed and become fully conversant with the latest pedagogy in keeping with the changes in social and economic life. As the human society is changing, the psychological world of the successive generations will inevitably be changing. To make teaching-learning effective in accordance with the everchanging situation teachers should gather contemporary knowledge and developments in and around the world. Teachers should get themselves apprised about this either through self learning or through external inputs. With this objective to empower the teachers at the local level, Cluster Level Resource Centres (CLRCs) and Circle Level Resource Centres (CRCs) were proposed to be established during late 1980s and which came into existence across the country in the subsequent periods.

In-service teacher training was always present in the system of education at every level since long. But the systematic inclusion of in-service teacher training at the school level was first introduced in an organised manner with the introduction of the District Primary Education Programme (DPEP) and the *Sarva Shiksha Abhiyan* (SSA)

programmes at the national level. In the programmes of in-service teachers training, teachers are empowered through training, workshops and orientation programmes in different areas. In SSA, a 20-day teacher training programme was made mandatory for all primary school teachers across India.

A New Era of Primary Education in West Bengal

Following the recommendations of Professor H.B. Majumdar in 1974, teaching-learning of English at the primary level (Class I to Class V) was discontinued from the Academic Session 1983–84 in West Bengal. Conceded by the huge public demand and mobilisation for reintroduction of English at the primary level, Government of West Bengal reintroduced it from Class V only, following the recommendation of the Ashok Mitra Commission, 1992. Again on the basis of the recommendations by Professor Pabitra Sarkar Committee, September, 1998, English as Second Language was formally introduced from Class III with exposure of familiar words and rhymes to the learners in Class II in their second semester during the academic session of 1999–2000. Finally, under the direction of Government of West Bengal, English was introduced from Class I begining 2004.

It was perceived by most of the Bengalis that the abolition of English at the primary level had driven back the prospects of their children, in terms of competition, at the all India level due to lack of adequate knowledge in English— one of the most important link languages in India. Recognising the grievance of general public, the Government of West Bengal decided to restart the teaching-learning of English. Plan of actions was prepared just after the introduction of English in Class I in 2004. All the stake holders were asked to converge on this agenda and work in a coordinated manner. All the activities and programmes related to teaching-learning of English by different organisations like District Primary School Councils (DPSC), West Bengal Board of Primary Education (WBBPE), SSA, State Council of Educational Research and Training (SCERT), West Bengal, Institute of English, West Bengal, School Education Directorate, School Education Department and various other NGOs came under a single umbrella, and the effort was led by the British Council, India division. The WBBPE was entrusted as the nodal agency for all these activities. Under the invitation of Government of West Bengal, the international consultant of British Council Dr Gorge Raymond Macay came in 2005 as a part of the development programme of teaching English at the primary level.

After extensive field survey, Dr Macay first suggested for renewal of all English textbooks for Class I–V. For composing the new textbooks he selected 25 people from amongst primary school teachers to university teachers across the State. There was a paradigm shift in the methodology of teaching-learning in English at the primary level under the leadership of Dr Macay. Books were prepared following the new methodology, i.e., importance was given to the acquisition of procedural knowledge along with the propositional knowledge. Side-by-side he also started huge orientation programmes for all the teachers and administrators, people's representatives and guardians to apprise them about the new methodology. After the appraisal programmes he started teacher training programmes. Dr Macay, prepared a team of 40 resource persons selected from Universities, Colleges, Secondary Schools, and Primary Schools who were to act as the Master Resource Persons (MRP) to conduct the teacher orientation programme in all the districts. In the presence of Dr Macay, these MRPs visited each and every district several times to prepare 200 District Resource Persons (DRP) per district in four to five phases. These DRPs were entrusted to conduct training programmes at the grass root level. Four to five MRPs were entrusted to oversee the entire training programmes at the district level. Continuous communication among the MRPs, DRPs and general primary teachers mainly from the remotest corner of the state with Dr Macay created a wave of enthusiasm with deep-rooted emotional involvement. Unlike other teacher training programmes, this programme lasted not for a single session but continued for several years till 2011 which was initiated first in 2005.

Dr Macay spent at least six months per year during this period along with this teacher training programme mainly on how to transact the new textbooks with the new methodology, WBBPE started another programme led by another British Council expert Mr Adrien to orient the teachers about how to conduct CCE on English following the new methodology.

The External Evaluation (EE) and Diagnostic Achievement Test (DAT)

In West Bengal, the policy of 'no detention along with CCE' was introduced and english was abolished at the primary level from the 1983–84 sessions. In order to understand the achievement of the students under the new system of teaching-learning, continued for a decade and a half, the Government of West Bengal felt the

urgency to assess how the students were responding and a system of performance assessment became necessary. Thereafter, the Government of West Bengal introduced 'External Evaluation (EE)' at the end of the session for Class II from 1998, and Diagnostic Achievement Test (DAT) at the end of Class IV in the session 2005–06. DAT was introduced to understand the achievements and weaknesses of the students in learning at the terminal level of primary education. Since, the objective of the DAT was to detect the weaknesses of the students and to impart appropriate remedial measures, it was shifted to Class III from the year 2007 as there was no scope of imparting remedial measures, since in most cases Class V is adjacent to either any secondary or higher secondary schools which are devoid of any data regarding the strength and weaknesses of the new students admitted in Class V. Both the EE and DAT were implemented by WBBPE, the autonomous body responsible to control and supervise all the sectors of primary education in West Bengal. WBBPE centrally prepared the questions and instructions for the evaluation and the teachers of the concerned schools evaluated the answer scripts. The performance was assessed out of 50 marks in total for each of the First Language, English and Arithmetic, the subjects taught in Class II and that of First Language, English, Arithmetic, History, Geography and Natural Science in Class IV and III. The assessment was made in terms of the percentage of students acquiring different marks/grade in the range of 0–9, 10–19, 20–29, 30–39, 40–49, and 50, i.e., a 6-point grading system. Both the EE and DAT continued till 2011.

'Teaching English Project' at the primary level in West Bengal probably, was the single largest programme of this kind in India. It was a unique programme in the sense that all the stakeholders converged on the same common goal. Funds from different sources, i.e., SSA, State Allocation and contribution from NGOs and international organisations like the British Council converged on this single programme to promote teaching-learning in English at the primary level in West Bengal. But unfortunately this enthusiastic and highly ambitious project is still unevaluated. Neither any departmental or administrative evaluation nor any academic discourse has been conducted on this project which is huge in terms of participation, coverage, time span, and cost.

Objectives and Research Questions

The objective of the study was to evaluate the Teaching English Project at the primary level in West Bengal based on the performance of the students who have appeared in the centrally conducted evaluations—

(i) External Evaluation (EE)

(ii) Diagnostic Achievement Test (DAT)

In this study, First Language, English and Arithmetic from DAT were considered for exact comparison with EE performance.

The performance of the students who appeared for EE and DAT are assessed on the basis of the Minimum Level of Learning (MLL). Considering the reality of the State, the Government of West Bengal fixed up the MLL as— all students should acquire at least 60 per cent of marks in any evaluation in quantitative terms (WBBPE, 2004).

This kind of performance analysis based on the evaluation, conducted by the WBBPE, a state academic authority is a unique attempt to understand the reality.

With the above stated objective, following research questions were framed to understand the impact of Teaching English Project in terms of the performance of the students in EE and DAT:

• What is the comparative performance of the students in English in EE and DAT?

• What is the comparative trend in performance of the students in English during the period of the study?

Research Methodology

Period of Study

EE was introduced in 1998 and continued till 2011. DAT at the end of Class IV was held for only one year, 2006 and at the end of Class III during the period 2007 to 2011. Since, the WBBPE introduced a uniform 6-point grading system to evaluate the students in both EE and DAT from 2007 which continued till 2011, the period of the present analysis in both EE and DAT was therefore 2007 to 2011. DAT was held in six subjects Bengali, English, Arithmetic, History, Geography and Natural Science but the present subject-wise comparative analysis considered only three subjects Bengali, English and Arithmetic in keeping with EE.

Sample Design

The present study about the analysis of primary education in West Bengal was mainly based on secondary data. The population of the study was the entire set of all the government-aided schools in West Bengal, which were approximately 49,981 in number.

School-wise performance data for all the government-aided schools which had participated in the evaluation process during the period from 2007 to 2011 were collected from all the districts in West Bengal. Then the sample of schools were selected randomly from the schools in each district in West Bengal for the study.

For a comprehensive study of the performance of the students in terms of their achievements of marks in different subjects, approximately 6 per cent of the population (i.e., total number of schools), was selected from different districts in West Bengal in each year for the period from 2007–11 for both EE and DAT, respectively.

Data Sources

In the present study, data are mainly collected from the WBBPE, DPSCs, School Education Department, Government of West Bengal and the School Education Directorate, Government of West Bengal.

Findings

Class II

This study was based on the performance of students from only the government-aided primary schools in West Bengal. According to the official data, there are 49,913 government-aided primary schools in West Bengal. Since, there was no detention at the primary level, therefore, participation in EE which is basically a written examination conducted by the external central agency was not mandatory either to the students or to school itself. However, most of the schools responded to the call of the Government of West Bengal and participated in EE throughout the period. But in no year all the schools in West Bengal participated in DAT rather the participation varied between 40,000 to 49,000. A substantial number of schools participated for several years but not in all the years during the period 1998 to 2011. Due to this variation in participating schools, there was also a variation in participation of the students ranging from 13,50,000 to 18,25,000, approximately.

The overall subject-wise performance of all the students of 2,898 (approximately 6 per cent of the total population) number of schools, those participated in EE in all the years from 2007 to

2011 is presented in the Figure 1. The percentage of students who acquired different grades on the 6-point grading system have been represented along the vertical axis and the 6-point grades have been shown along the horizontal axis.

Considering the proportion of students who acquired different grades it is observed from Figure 1 that among the three subjects— First Language, English and Arithmetic, overall performance of the students was best in English.

	0-9	10-19	20-29	30-39	40-49	FULL MARKS
First Language	4.20%	14.30%	24.85%	29.95%	26.05%	0.65%
English	3.70%	11.50%	22.15%	29.95%	30.20%	2.55%
Arithmetic	5.75%	18.05%	27.70%	27.90%	18.85%	1.70%
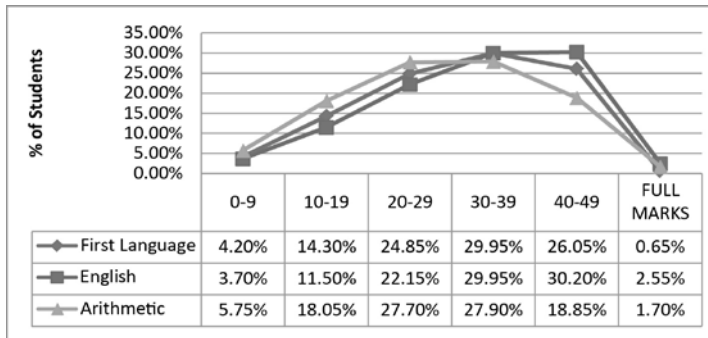
Figure 1: Subject-wise performance of students

In terms of MLL, comparative performance in English was best among all the three subjects. In Arithmetic overall 48.5 per cent students acquired MLL, i.e., at least 60 per cent marks in EE during the period 2007–11. In the First Language 56.65 per cent students acquired MLL, i.e., at least 60 per cent marks and in English the figure is 62.7 per cent. It is amazing that the performance of the students in English was better than that in their vernacular language.

Trend in performance of the students in First Language over the period in terms of MLL in EE is shown in Figure 2 and that for Arithmetic and English are shown in Figure 3 and 4, respectively.

	2007	2008	2009	2010	2011
First Language	52.75%	55.15%	57.75%	59.15%	58.65%
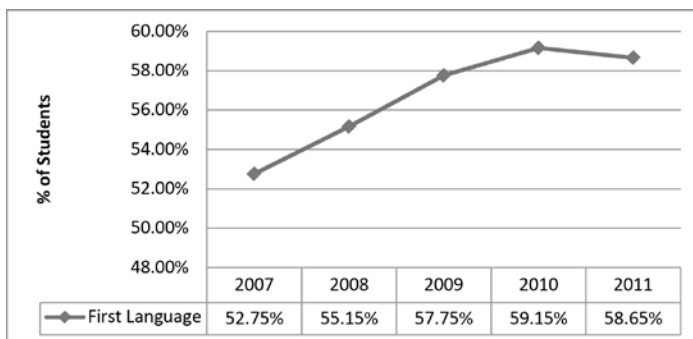
Figure 2: Performance of students in first language

	2007	2008	2009	2010	2011
Arithmetic	43.89%	48.64%	49.54%	50.64%	49.54%
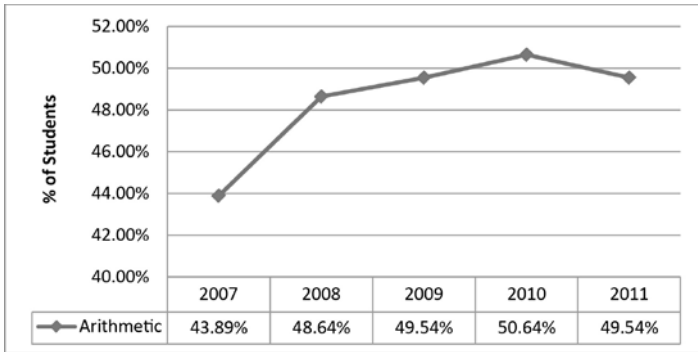
Figure 3: Performance of students in Arithmetic

	2007	2008	2009	2010	2011
English	54.03%	54.91%	68.36%	68.81%	67.41%
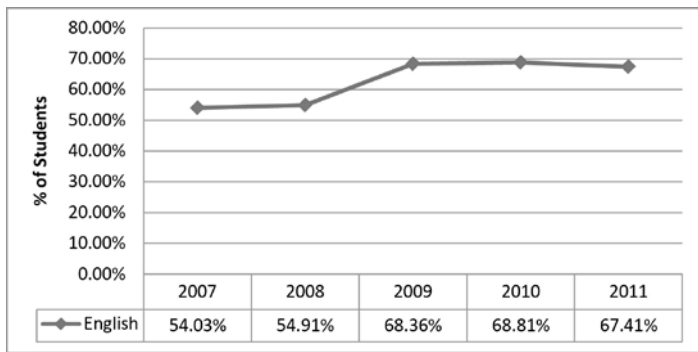
Figure 4: Performance of students in English

From the trend analysis it is observed that comparative performance of the students in English was better than the other two subjects during the years from 2007 to 2011 in terms of MLL.

Class III

Like EE, there were variations in terms of both participating schools as well as students in DAT during the period 2007–11. Number of participating schools varied from 45,500 to more than 48,000 in different years and the number of participating students differed in different years ranging from 13,60,000 to 14,90,000. The performance analysis in DAT was based on the marks obtained by the students from 2,093 (approximately 6 per cent of the total population) number of common schools which participated in each year in DAT from 2007–11.

	0-9	10-19	20-29	30-39	40-49	FULL MARKS
First Language	4%	12.55%	23.65%	31.75%	27.50%	0.55%
English	3.20%	9.75%	23.69%	32.10%	30.31%	1.55%
Arithmetic	4.20%	16.20%	28.50%	30.31%	19.29%	1.50%
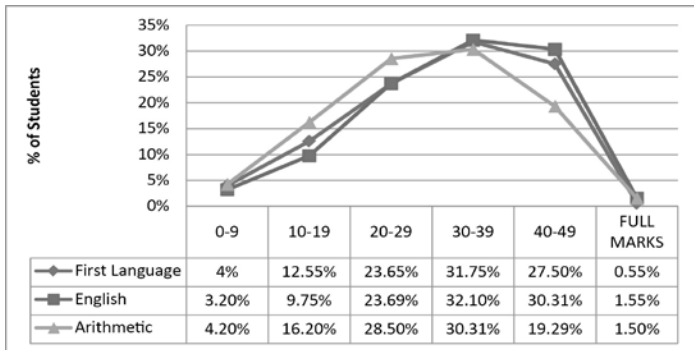
Figure 5: Relative performance in DAT in different subjects

Figure 5 reveals that the overall performance of the students in DAT was again best in English among all the three subjects as comparatively higher percentage of students acquired higher marks grades in it. Overall 51.1 per cent of total students acquired MLL in Arithmetic, during the period 2007–11. In First Language the figure was 59.8 per cent and in English it was 63.96 per cent.

	2007	2008	2009	2010	2011
First Language	54.10%	57.70%	60.12%	63.11%	63.87%
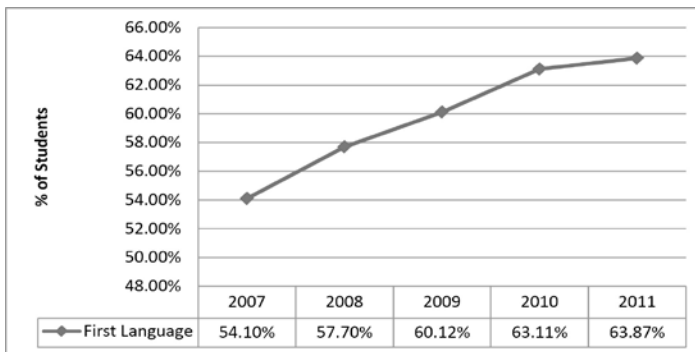
Figure 6: Performance of students in first language

The year wise performance of the students in First Language in terms of MLL, is shown in Figure 6 and that for Arithmetic and English are shown in Figure 7 and 8, respectively.

It is observed from Figure 6, 7 and 8 that there exists a clear trend of development in the performance of the students in DAT in both First Language and English during the period 2007–11. But the same development is not observed for Arithmetic. However, in all the years the performance of the students in English was better than the other two subjects in terms of MLL.

	2007	2008	2009	2010	2011
Arithmetic	53.30%	48.19%	51.28%	50.36%	51.70%
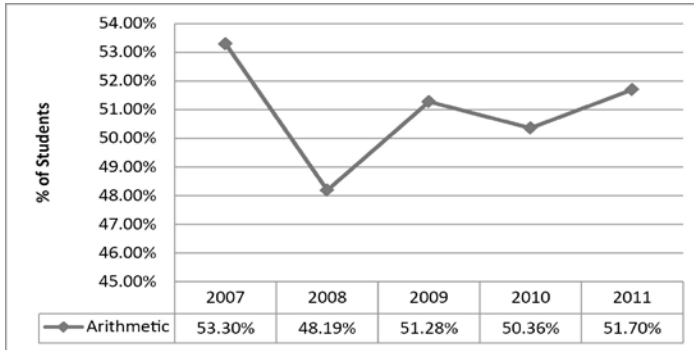
Figure 7: Performance of students in Arithmetic

Conclusion and Policy Prescription

From the subject-wise comparative analysis of the performance of students in EE and DAT, it is concluded that students' performance is best in English among the three subjects First Language, Arithmetic and English in West Bengal. This could be attributed to the massive teacher training programme during a long period of time.

	2007	2008	2009	2010	2011
English	62.40%	63.61%	64.10%	64.43%	64.78%
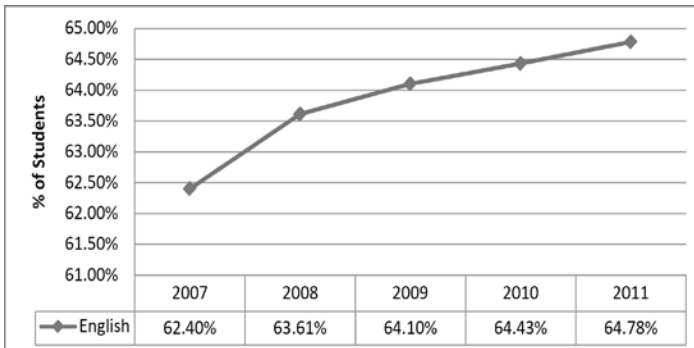
Figure 8: Performance of students in English

In-service teacher training programme is imperative for better performance of students. There are three aspects of UEE — universal access, universal retention and universal achievement. The third goal is very much important and is a cause of concern for all the policy makers and administrators which is reflected in the report of the 12th Five Year Plan by the Planning Commission of India. Lots of development has taken place in respect of universal access and universal retention in primary education in India but

still there are a lot many things to be done in respect of quality of primary education. Organised long-term in-service teacher training programme involving all the stakeholders may be prescribed in this regard.

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Ideal Teacher Qualities as Perceived by High-Ability Students from Low Socio-Economic Backgrounds
A Study based in West Bengal

Paromita Roy* and Surabhi Dasgupta**

Abstracts

This study was aimed at understanding perceptions of underprivileged high-ability middle school students regarding the qualities they considered 'best' in their favourite science teachers. Almost 74 students identified from a cohort of 733 Class VIII students from five rural schools in the state of West Bengal (India) rated their best science teacher by indicating certain qualities and attributes which were enlisted in a questionnaire. Results indicate that for the concerned group of students it is far more crucial that a good teacher values their problems and is patient and understanding rather than the fact that he or she is a domain expert. Good guidance and infusion of the spirit of independent thinking in a student are also sought after virtues but on the whole it is the humane qualities which stand out because of perhaps the socio-economic background of the students concerned.

Introduction

India, the largest and most diverse democracy in the world, with a population of 1.21 billion (623.7 million males and 586.5 million females) in 2011, (Census of India, 2011) is being seen as one of the fastest growing countries in today's rapidly changing global economy. However, despite achieving all-round socio-economic progress through seven decades of its independence and modernisation in education, science and technology, improvement

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in the quality of life has been seen mostly in those Indians who are privileged and elite. There has been very little improvement of the masses who live in poverty and who face unemployment, illiteracy and caste and minority-based issues and gender biases.

With 69 per cent of its population residing in villages, nearly half of India's 16.8 million schools are situated in rural areas and cater to nearly 300 million students (Census, 2011). Government faces grave educational challenges in terms of exposure, infrastructure and teacher resources, lack of which lead to low educational status, high poverty, and less access to modern amenities (Haub and Sharma, 2006). In addition, the number of non-school going children between 6–14 years was seen to be 8.15 million in 2013 of which 50 per cent were girls. Despite significant accomplishments, the slow progress in reducing the number of non-literates continues to be a concern with national literacy rates at 74.04 per cent (Census, 2011) and youth literacy rate at 86.14 per cent (NUEPA, 2014).

Based on the principles of an egalitarian and integrated society, the Indian education system lays emphasis on equal education for all. The international agenda of Education For All (EFA) agreed through the Dakar Framework of Action (2001) has been central to the focus and implementation of educational development in India. This has strengthened the enactment of the Right of Children to Free and Compulsory Education (RTE) Act 2009 that has led to overall neglect of secondary and higher education (Tilak, 2005) and 'educational excellence' has been considered an option for more privileged schools. The National Curriculum Framework (2006) does not allude to services for gifted students and participation of high ability students in gifted programs.

Neither researchers nor policy makers have given much attention on secondary and higher education of those from low socio-economic background. Instead, it is widely held that secondary and higher education is less important for social development, income distribution and equity. Those few researchers who analysed the relationship between post-primary education and development, did, however, find significant impact of education on social, occupational and economic growth (Benhabib and Spiegel, 1994) which leads to enhanced human capability and wider human freedom (Sen, 1999).

In India, the term 'underprivileged student' has a wide range of connotations from those who may belong to low socio-economic strata, ethnic and religious minorities, caste and gender to those

from remote geographical regions and poorly resourced schools. Socio-Economic Status (SES) refers to an individual's position within a hierarchical social structure, and which is an important determinant of a child's educational and health status. Poor socio-economic status often drastically affects children's success in school and children from such families seem to be less successful educationally than those coming from economically stable families. Though one in three children in India live in absolute poverty, about 70 per cent of them attend schools. But, growing up in poor households stifle their freedom to actively participate in and benefit fully from elementary school education. This deprivation is further accentuated by lack of infrastructure and human resources in the schools they attend.

Low education opportunity and low income are also closely related in a way that one is responsible for the other thus making it mutually reinforcing. The World Bank (1994, p. 9) recognises, "Poverty is not only a problem of low incomes rather it is a multi-dimensional problem that includes low access to opportunities for developing human capital and to education..." Payne (1998, p. 16) contends that poverty is, "the extent to which an individual does without resources". While poverty is generally considered in financial terms only, Payne (1998) maintains that financial resources are only a fraction of the sum totals of other resources may contribute to poverty.

Researchers have identified a significant disparity in the number of disadvantaged children who are selected for gifted programs (Baldwin, 2005; Begoray and Slovinsky, 1997; Borland and Wright, 2000; Callahan, 2005; Elhoweris, Mutua, Alsheikh, and Holloway, 2005; Naglieri and Ford, 2005; Scott and Delgado, 2005). The under representation of underprivileged students in gifted programs poses a challenge to policy makers, teachers and educational institutions.

Under-representation begins during the identification process and is largely exclusive to children of ethnic minority and low socio-economic status. However, neither the environment nor the culture in which a child is raised should preclude assumptions about intelligence, giftedness, or any other exceptionality (Bianco, 2005; Borland and Wright, 2000). Contributing factors that independently or mutually exacerbate the problem include ambiguity in defining giftedness, teachers' perceptions, under

achievement, culturally-biased assessments, singular standardised evaluations, and inadequate teacher training (Brown, Renzulli, Gubbins, Siegle, Zhang, and Chen, 2005; Davis and Rimm, 2004). Students of low-income families who are of high ability or show high potential often go unrecognised and are likely to fall behind others of similar ability due to factors associated with poverty. Despite this existing situation, Indian students continue to strive towards realising their creative goals through perseverance, hard work, their multilingual skills and their ability to thrive in less enabling environments.

For most adolescents, school is a prominent part of their life. It is here that they relate to and develop relationships with their peers and where they have the opportunity to develop key cognitive skills. They need a great deal of social and academic guidance to adjust with their own over excitabilities as well as adjust to peers in their classrooms. Since, teachers have a significant influence on this learning environment, and are critical to the success of gifted programs (Renzulli, 1968), the characteristics, skills, knowledge, and training of teachers who implement gifted programme should be the concerns of all gifted programme providers.

High ability students have academic and socio-emotional needs that arise due to their increased capacity to think beyond their years, greater intensity in response, combinations of unique interests, personality characteristics, and conflicts that are different from those of their peers. They require a differentiated curriculum with an optimal learning environment. Despite their rapidly developing capacity for higher-level thinking, most adolescents still need guidance from adults to develop their potential for rational decision making and prefer to confer with their parents or other trusted adults. With the existing Pupil-Teacher Ratio (PTR) of 1:36, it is more difficult for teachers to work with students in large classrooms. Sieving out high-ability students in this situation is possible only through looking at their grades which may leave out those children who possess high abilities but do not do well in school tests. Serving the needs of these students is virtually impossible in such situations.

Adolescent perception of teacher fairness, has been found to be associated with positive adolescent development. Hansford (1985) found qualities that made teachers of gifted students apart from others, namely; openness, flexibility, strong communication

skills, and intelligence. Other characteristics like thorough understanding of subject matter, self-confidence, a good sense of humour, organisational skills were seen as common characteristics of all effective teachers. Vialle and Quigley (2002) include insights into cognitive, social, and emotional needs, skills in differentiating curriculum, strategies that encourage higher level thinking and independent learning, possessing in-depth knowledge of subject matter, thinking creatively and possessing excellent communication skills. Another study by Walls Nardi, Von Minden and Hoffman (2002) examining perceptions of students on qualities of effective and ineffective teachers found five distinguishing dimensions, namely; (i) emotional environment, (ii) teacher skill, (iii) teacher motivation, (iv) student participation, and (v) rules and grades.

Teachers in classrooms with high ability and gifted students need to be made aware and sensitised towards their needs. They are expected to inspire, entertain, develop creativity, mould the understanding, encourage, inspire hope and imbibe rules to the learners along with their teaching. Effectiveness of teachers are not based only on their performance in the classroom setup but which includes the accountability for student learning and to develop humanitarian characteristics. A teacher is someone acknowledged as a guide or helper in the processes of learning and his/her role may vary between cultures. In education, teachers facilitate student learning, often in a school or academy or perhaps in another environment, such as outdoors. Teacher effectiveness is the degree to which a teacher achieves the desired effects upon students. It involves possessing knowledge and skills, along with his/her behaviour in the process of teaching (Dunkin, 1997). It includes characteristics like personality, attitudes as well outcomes of teacher-learning process (Kulsum, 2000).

Studies report that effective teacher qualities include ability to propel students towards developing positive self-confidence and self-esteem (Ahmad, Said, Zeb, Sihatullah and Rehman, 2013), create positive learning environments, and support students to be motivated towards success (Walls, Nardi, von Minden and Hoffman, 2002). They are seen to be capable of balancing the students' intellectual achievements and interpersonal learning in classroom (Reiman and Thies- Sprinthall, 1998). Such teachers are conscientious, trusting, adaptable, and practical, friendly, gregarious (Murray, 1990 and Sharma, 2008), warm, kind,

empathetic and understanding towards students (Yilmaz, 2011). Raymond's (2008) study suggests that effective teaching is a combination of both personality and ability factors some of which are being respectful of students, putting tremendous effort to make classes interesting, fair in evaluating, concerned about students' success, passionate for their subject, well prepared and organised and making difficult subjects easy to learn. Studies have reported that the personality types of teachers are in many ways similar to the personality types of the gifted students and who prefer abstract themes and concepts, are open and flexible, and value logical analysis and objectivity (Feldhusen, 1997; Mills 2003). However, another study with 50 Chinese teachers in Hong Kong who rated the importance of 25 characteristics and 14 competencies for teachers of gifted learners found philosophical ideals rated as most important, followed by professional predispositions. Personal attributes were rated as least important (Chan, 2001).

In view of the interesting studies across the world on the perceptions of adolescent students in general and high-ability students as a subgroup within this cohort, the following study was undertaken to see whether similar perceptions exist amongst underprivileged students who have superior academic achievements in their respective environments.

Methods and Procedures

Participants/ Subjects

Through this study, an attempt was made to assess the qualities and attributes of an ideal science teacher as expressed by middle school high-ability students from the state of West Bengal in Eastern India. Around 74 high-ability students of Class VIII from five schools that had a majority of students from low socio-economic status rated their best science teacher by indicating the presence or absence of certain qualities and attributes which were enlisted in a questionnaire.

Moderately high ability students of these five schools were those who fell in the top 15 per cent of the normal population of Class VIII students. These five schools have a significant number of first generation learners coming from financially and socially backward backgrounds. By first generation learners, we mean that these students and their siblings are the first to attend schools while their parents have never been to a school and are more or less illiterate.

Selections of 74 students were made from a population of 733 Class VIII students studying in these five rural schools. They were evaluated and selected on the basis of their performance, enthusiasm, task persistence, interest in science activities, quality of science projects as well as nominations by their teachers over a period of nearly one year. Students were not aware of teacher nomination details.

Research Questions

Some specific questions we wished to address were:

(i) Are the 12 enlisted teacher qualities equally dominant in the eyes of a Class VIII student who hails from a low socio-economic background? If not, which qualities are the most important when it comes to judging a teacher as 'best'?

(ii) Is there any significant variation in student perception of the best qualities of the teachers across disciplines, such as Mathematics, Life Sciences and Physical Sciences?

(iii) Is there any association between gender and student perception of the qualities of their best teacher?

(iv) Do the students of these five rural schools differ in their perception of qualities of their best teacher?

Data Analysis

The 12 enlisted attributes of a teacher were— (i) Good personality, (ii) Knows subject, (iii) Guides well, (iv) Patiently explains, (v) Interesting teaching, (vi) Understands students, (vii) Respects students, (viii) Values student problems, (ix) Gives lots of ideas, (x) Helps students think independently, (xi) Disciplined and (xii) Not biased. Our primary objective was to find out which attributes or qualities do students look for in their ideal teacher. However, we limited ourselves to teachers of the basic sciences and mathematics. The study was particularly significant as we considered high-ability school middle school students from a low socio-economic background.

To provide answers to the specific research questions we wished to address, we first considered the combined data where students put forward their likings and preferences as far as teacher qualities were concerned without any special emphasis on the subject taught by the teacher A chi-square test for equality of several independent Binomial proportions was carried out to see whether there was

any significant difference in proportion of students perceiving the presence of different enlisted attributes in their best or ideal teacher. The hypothesis of no difference was rejected we arranged the 12 sample proportions in decreasing order of magnitude. The top five proportions were considered and pair-wise comparison was carried out with these five proportions using the large sample test for Binomial proportions. This enabled us to gauge the relative dominance of the five most significant attributes a student perceives in his or her best teacher. A similar line of analysis was followed for the best teachers of the three basic sciences separately to see whether there was any significant variation in student perception with subject.

Cross contingency tables with gender and teacher qualities and different schools and teacher qualities were formed. The strength of association between the pair of nominal variables was assessed using Pearson's coefficient of contingency table. This enabled us to figure out if the perception of qualities of a best teacher was somehow associated with gender or schooling of a student. However, these measures would only help to understand the presence or absence of association, the causality would be the subject of further socio-economic analyses.

Results

The observed values of the chi-square test for the combined data as well as for the samples judging their Mathematics, Physical Sciences and Life Sciences teachers as best were 94.31, 37.97, 47.52 and 19.36, respectively. The first three values were significant at the 5 per cent level of significance as they exceeded the critical values of the relevant chi-square variables.

The paired comparison was therefore valid only in the first three situations where we considered the combined sample and the sample of students judging their Mathematics and Physical Sciences teacher as best, respectively. Such an analysis was not relevant for the sample of students judging their Life Sciences teacher as best as there seems to be no significant difference in the relative importance of the 12 enlisted teacher attributes in this case.

For both the combined sample as well as the sample of students judging their Physical Science teacher as best the top five sample proportions were found to be 'values students problems' (1), 'patiently explains' (2) 'interesting teaching' (3) 'helps students think independently' (4) and 'guides well' (5). For the sample of students judging their Mathematics teacher as best, there was

a slight change in the order of magnitude of the above sample proportions. They were 'values students' problems' (1) 'guides well' (2) 'interesting teaching' (3) 'patiently explains' (4) and 'helps students think independently' (5).

The observed values of the standard normal variable (τ) for the paired comparisons are presented in the following tables separately for the three cases.

Table 1
Combined Sample

Attributes	1 (values students' problems)	2 (patiently explains)	3 (interesting teaching)	4 (helps students think independently)	5 (guides well)
1.					
2.	1.37				
3.	2.13	0.76			
4.	2.60	1.14	0.37		
5.	2.44	1.87	1.11	0.73	

Table 2
Best Teacher: Mathematics

Attributes	1 (values students' problems)	2 (guides well)	3 (interesting teaching)	4 (patiently explains)	5 (helps students think independently)
1.					
2.	3.36				
3.	4.36	1.03			
4.	5.34	2.04	1.01		
5.	6.29	3.03	2.01	1.00	

Table 3
Best Teacher: Physical Sciences

Attributes	1 (values students' problems)	2 (patiently explains)	3 (interesting teaching)	4 (helps students think independently)	5 (guides well)
1.					
2.	0.09				
3.	1.81	0.97			
4.	1.99	1.15	1.90		
5.	3.21	2.30	1.35	1.17	

The figures in the tables show the observed value of the test which in each case follows approximately a standard normal distribution. Comparing these, we find that the significant pairs for the combined sample were (1, 3), (1, 4), (1, 5), (2, 3) and (2, 5). For the sample of students judging their Mathematics teacher as best, the significant pairs came out to be (1, 2), (1, 3), (1, 4), (1, 5), (2, 4), (2, 5) and (3, 5). The same for the sample of students judging their Physical Sciences teacher as best were; (1, 3) (1, 4), (1, 5) and (2, 5). This clearly indicates that the most sought after teacher attributes designated by the numerals 1–5 are again not equally important in the eyes of a typical student. It is a striking feature that in all the cases considered, it is far more important that an ideal teacher values students' problems (1) than whether he or she possesses the other significant academic skills (designated by 2, 3, 4, 5).

Karl Pearson's coefficient of contingency for gender and student perception was 0.08 and that for schooling and perception was 0.20. This points to an insignificant association between gender of a student and his or her perception regarding teacher qualities so that one may conclude for the concerned sample that male and female students share more-or-less similar views when it comes to judging their best teacher in basic sciences. However, it appears that schooling contributes, though not very significantly, to the shaping of views and perception of a student regarding the attributes of an ideal teacher. This is to some extent expected as the competence of the teachers employed in a school is very likely to impress upon the students and hence shape their views and expectation where school teaching is concerned.

Salient Points

From the numerical results, there appears to be a significant difference in the proportion of students perceiving different attributes and qualities in their best teacher when we consider the overall sample of 74 students as also the sub-samples who judge their Mathematics and Physical Sciences teacher as best. However for the group of students judging their Life Science teacher as best, all the 12 attributes appear equally significant in the eyes of the students.

The paired comparison indicates that it is far more important that a teacher values students' problems rather than the fact that he or she is a domain expert having good teaching skills, is patient

and can infuse the spirit of independent thinking in a student. Because gifted and able students have higher cognitive abilities than their peers, the quality of their academic needs are enhanced. This leads to their need to understand and master concepts that are not only advanced but require more time, patience. Also, because they are creative learners they tend to be self paced and independent, as they prefer to think according to the questions that arise in their minds and not just focus on the classroom questions. This may also be partly explained by the fact that we have based our study on a group of high-ability students from a disadvantaged background where availability of basic amenities is a vital issue and education virtually takes a backseat. It is, therefore, crucial that their teacher understands and appreciates their problems and grievances.

Patience on the part of the teacher is also a highly sought after virtue in comparison with domain knowledge and teaching skills. However, for students who find their Mathematics teacher best, good guidance is significantly more important than patience which is perhaps explained by the nature of the subject concerned. Vialle and Tischler (2009) in their study on gifted student's perceptions of effective teachers demonstrated that gifted students preferred the personal-social characteristics to the intellectual characteristics of their teachers. Delaney (2009) determined that the five most important characteristics of teachers for a sample of 450 Canadian high school students were that teachers were knowledgeable, humorous, respectful, patient, and organised. Davis and Rimm (2004) believe that teachers of the high-ability students should possess traits, such as 'high enthusiasm, empathy, broad knowledge and maturity' (p.53). Rosemarin (2013) found a central component of successful teaching to be an ability to respond to students and found a preference for social qualities of the teacher.

Some studies noted that many high ability, creative and talented students were disliked and misunderstood by their teachers (Fleith, 2000; Reid and McGuire, 1995; Slabbert,1994; Torrance and Safter, 1986). In the light of the present study, the results of students choosing the most liked characteristics of their best teacher, it seems such students are better liked, better understood and more valued.

A weak association is observed between gender of the students and their perception of teacher qualities whereas schooling affects students' perception, albeit moderately. This result implies that the 74 students (both boys and girls) who came from disadvantaged backgrounds from different districts of West Bengal did not differ in their opinions on the qualities that they felt were strongest in their best teachers.

Conclusions and Limitations

On the basis of our sample of 74 high-ability Class VIII students from an economically disadvantaged background, we find that not all qualities and attributes of an ideal teacher are equally significant in their eyes. It is extremely important that an ideal teacher values their problems and limitations rather than the fact that he or she is a domain expert. Hailing from an underprivileged background, where availability of basic amenities is itself an issue, this kind of an expectation from a good teacher is only natural. The more a teacher understands and appreciates their problems the better it is for them. Patience is also a highly sought after virtue and so is good guidance particularly in subjects like Mathematics. The way a student perceives the qualities in his/her teachers does not seem to depend on the gender of a student but definitely to a certain extent on his/her schooling. Schooling goes a long way in exposing a student to competent and well-trained teachers and that definitely shapes the thinking and perception of a student.

The main limitation of our present study is that the sample size is not so large so that all conclusions drawn may be somewhat empirical in nature. Repeating this kind of a study with a larger sample may reveal other interesting and may be different features.

Further, a similar study with students from a privileged set-up can reveal whether and how perception and views of students are affected by their socio-economic background. This should give insight into the relationship between socio-economic status of students and their perceptions. A result indicating a significant effect of socio-economic status on a student's perception, would suggest that underprivileged students in India have unique needs from their teachers. However, findings of more privileged students of India sharing similar views with under-privileged counterparts would send an important message to the teachers who teach gifted students from both marginalised and privileged segments

of the Indian society. Also, the needs of underprivileged students would be better understood, in terms of their expectations from their teachers, and in comparison to better privileged students. Orientation and training courses for teachers could then be tailored to meet the needs of students accordingly.

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Does School Leadership Matter for Student Learning in India?
A Case Study of Sikkim

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ABSTRACT

Leadership is a new area of focus for improving student learning in India. A study was conducted in Sikkim to understand the influence of school leadership on student learning in Indian context. Random sampling was used to select 35 schools. Rating scales were constructed and administered for school heads of secondary and senior secondary schools to self evaluate their practices. Results of correlation analysis show that school leadership practice on shared vision impacts school leadership through teacher professional development, which is directly related to school climate and child focus. These school leadership practices are influenced by leadership values, beliefs and experience of school head. They in turn mediate school processes influencing student learning indirectly through academic structures and work processes and directly through teacher professional development and child focus. It is, therefore, suggested that teacher professional development as a key leadership practice must lie with school heads for improved student learning.

School Leadership: Significance, Process, Styles and Context

In a world of fast growth, characterised by achievement motivation, one cannot but think and act as leaders including school heads. School leadership is the second most important factor only after teacher quality (Leithwood et al., 2004) constituting as high as 25 per cent of the total effects on student learning (Leithwood et al., 2008) that creates conditions for teachers to teach effectively (Dinham, 2008) dealing with issues on ensuring adequate staff,

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school structures, external links, and resources that allow students to be transformed into learners (Hee-Tie, 2008, p.420). As a result, school variations in classroom instruction are strongly associated with school leadership (Sebastian and Allenworth, 2012) for which principals build teams, translate vision for successful learning of all students, cultivate leadership in others, help teachers upgrade their skills and use data to foster school improvement (Mendels and Mitgang, 2013). The factors for such school leadership constitute a mediating path having school climate, academic capacity of teachers and their professional learning, school culture, managing instructional programmes, staff participation in decision making (Hallinger and Heck, 1996; Leithwood et al., 2006) and data-informed decision making on school processes (Shen et al., 2016).

School processes, characterised by transformational leadership practices, make a small but practically important contribution to overall student achievement (Leithwood and Jantzi, 1999; Marks and Printy, 2003) including the internal state of individual teachers (Ross and Gray, 2006; Liethwood and Sun, 2011), whereas pedagogical leadership is nearly four times more effective than transformational leadership for student learning outcomes (Robinson et al., 2008, 2009). Similarly, collaborative leadership builds capacity for academic improvement of teachers (Hallinger and Heck, 2010, 2011) whereas distributive leadership contributes to school improvement (Gronn, 2000 and Spillane, 2006).

Core leadership practices must also commensurate with school's immediate context to lead change (Klar and Brewer, 2013) as these practices are influenced by culture (Safran, et al., n.d.), such as working in poor urban areas necessitates exercising strong personal vision of education to create positive learning environment to support teachers and students (Hallinger and Murphy, 1985) or schools to come off their low base under challenging circumstances (Louis et al., 2010), etc. Confirming the fact that it is not the leadership practices by themselves but the manner in which leaders apply in concert with their unique environment determines the degree to which they influence student learning (Leithwood et al., 2006). Therefore, it is a specialist occupation requiring specific preparation and development (Bush, 2008) so much so that, many teachers perceive that their leadership practices and teaching skills improved having undergone a well-structured university course on school leadership, though it is not a pre-requisite (Strevig, et al., 2013).

The Lost School Head: Status of School Leadership in India

The role of a school head was not seen distinct from that of teachers' in India until recently. She/he was referred mostly as head teacher or head master/mistress especially at elementary and secondary levels who spend their time mostly teaching like any other teacher in the school. So, there was no distinction between the role of a school head and that of other teachers. Only in senior secondary schools, principals are seen to be spending more time on management, administration, staff management, finances, etc.

Raising concerns about the quality of school leadership in India, Govinda (2002) and NUEPA (2010) emphasise on the need for improving working conditions and initiate school leadership development as several systemic constraints impede school heads to perform effectively. Sujatha (2011) found that self-motivated school heads are largely responsible for school success. The 12th five year plan recognised the role of school leadership as one of the four pillars for improving school quality (Government of India-Planning Commission, 2012, p.54). Since then, the initiatives to introduce school leadership development programmes (SLDP) have begun under *Sarva Shiksha Abhiyan* (SSA) and *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA). Thus, leadership development in school is comparatively a new phenomenon in India.

For more than a decade, the responsibility of improving teacher quality largely is with SSA and RMSA. In the process, many of the primary responsibilities of school head got shifted to these programmatic structures, due to which, school head is left out of teaching-learning process. Further, SSA and RMSA programmes have forgotten to include the school head in any of their programmes ever since they came into existence in the year 2000. Having had no exposure to new knowledge, school head is rendered helpless in commanding the schooling process and lead teachers. Many of the core academic functions of school-head, such as academic supervision and guidance of teachers have been transferred to Block Education Officers who operate through Block Resource Centres and Cluster Resource Centres (Govinda, 2002) leaving the school head only with clerical works, reporting the status of implementation, maintaining infrastructure, and liaison with higher officials in the department to get funds, etc. School head's anguish expressed by many about being left out of the reform process is summarised:

"All these years, only teachers were called for all training programmes and HMs were left out of all these academic trainings. Having attended the training and learnt a few new terminologies, teachers would challenge their school heads by using those terms rendering them speechless for not knowing'... also, we are no longer considered teachers... We are expected to monitor, guide, inspect and report about teachers on all these matters as part of the SSA and RMSA programmes. We cannot ask teachers who are working under us. In the process, we are seen as incapable, not knowing, and inefficient school heads'."

It was echoed by other principals in many ways:

"Madam, we are so emotional today, like kids... we do not know how to control our emotions in this workshop (that is) meant only for us, HMs. Kindly tolerate (with) us for two or three days"[1]

<div align="right">

President, Head Master's Association,
Telangana State, India

</div>

"I wish this training was given five years ago when I was promoted as principal."

<div align="right">

Principal, Sikkim

</div>

"I will not leave a chance to attend this training again and again."

<div align="right">

Principal, Manipur

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These correspond to the observation made by an education officer from Himachal Pradesh:

"At the end of every teacher-training programme, we have recently begun to involve school heads for one or two days so that they are aware of the trainings given to teachers. This has helped school heads to implement programmes efficiently through teachers. School heads have now begun to feel that they are also part of the education system having involved in the educational reforms. The school leadership development programme (SLDP) has brought back the attention to school heads, today in the country."

The persisting lower levels of learning since 1990s (Agarwal, 1995) till date as the World Bank (2017) observed in its report on learning that there is a crisis in learning among students in countries such as India. The thrust and engagement in the dialogue at the national level by MHRD has significantly shifted towards improving quality of education, especially, student learning for which teacher education and school leadership are increasingly considered as areas of critical focus.

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[1]   As expressed in a workshop with the author which was held to vet the curriculum framework on school leadership development for which school heads were invited.

Though there is a wide knowledge base at international levels on school leadership and leadership for learning, not much is known in Indian context. The discussion so for sets the requisite context for the present study. Also, very little is known about the influence of school heads on student learning. The present study, therefore, intends to examine how school leadership practices impact student learning outcomes in Indian context.

Leadership for Learning

Leadership For Learning (LfL) constitutes the core focus in the context of school education for which all other types of leadership perspectives, practices, styles, behaviours, processes, concepts and theories are meant. In practicing LfL, learning leaders know people, organisation, communities and contexts; they ask questions rather than provide answers; know what is happening with teaching and learning; and even find ways to release creative energy of teachers and students (Sackney and Mitchell, 2008, p.126). Various criteria and/or conditions for learning are suggested: having a 'compositional effect' (Martimore, 1998); 'social mix' for right attitudes (Thrupp, 1999); 'school as a learner', that grows every day so that one doesn't step into the same school twice (Senge, et al., 2003); pupils as *community of learners* (Townsend and MacBeath, 2011); 'flying below the radar' to keep learning at the very centre amidst myriad pressures and everyday business that requires both skill and will to pursue what is valued rather than what is simply measured (Hargreaves in Townsend and Mac Beath, 2011) to lead learning and ensure quality of learning (Al-Barwani, 2011).

LfL overcomes the pace and quality of learning through the workplace learning (Jwan and ong'ondo, 2011, p.410), through its quality of efforts and action. These are supported by key values, such as positive change, goal directedness and perseverance (Ezzaki, 2011) and are deeply influenced by the *values, beliefs, knowledge and experience of school head; his/her leadership focus, context for leadership and sources of leadership* (Hallinger, 2011). Thus, leaders best affect student learning outcomes when: they have an agreed and shared moral purpose; there is a disciplined dialogue; they plan, monitor and decide based on evidence; they are active professional learners with teachers; they enhance conditions for learning, manage and monitor

teaching, use distributive leadership, connect with parents and community (Dampster, 2015). So, LfL is a multidimensional and multilateral process held together by a common goal of learning in which not only individuals and organisations are involved but also different professional groups and specialised institutions working in areas other than education sector are associated.

Conceptualising Leadership for Learning for Indian Context

Given the strength of LfL for ensuring student learning, especially when learning levels of students are being increasingly subjected to international and regional scrutiny, contextualising LfL in Indian context is an important and optimistic step. LfL in Indian context refers to shared vision that aligns the processes, practices and perspectives of all teachers and school head in the school with adequate active participation of community, parents and higher education officials in the education system to collectively set realistic goals for learning. School head facilitates, enables and supports teachers to realise these goals especially through strengthening their academic and pedagogical competencies and skills and setting clear goals for teachers. She/he motivates, encourages innovation, works collectively with colleagues, provides forum for open dialogue, facilitates work processes and provides essential and sufficient conditions for teachers, children and stakeholders so that they experience a sense of well-being for accomplishing learning in the school. At the same time, school head does not forget the primary responsibility of attending children by addressing their developmental needs, aspirations, potentials and abilities via working with parents, teachers and community due to which adequate opportunities are made available for every child to learn. She/he supports these practices by adopting appropriate procedures that guarantee smooth administration of the school including active participation at the block, district and state levels to negotiate with education officials for improving the school facilities and environment, to implement policies and programmes of the government effectively and managing the time effectively between administrative and academic works. All these efforts culminate in student learning that is age and grade appropriate. It is indicated in the grades scored by students in Class X public examination.

Method

Sampling and sample

The site of study is Sikkim, one of the seven states in the inner ranges of Himalayas, situated in the North Eastern Region of India. It has a literacy rate of 82.2 per cent that is well above the national average of 74.4 per cent (Census of India, 2011). It is also the second highest among smaller states in the National Achievement Survey (NAS) on student learning outcomes (NCERT round IV, 2015). It has no Educationally Backward Blocks (EBB)[2] which contrasts other states in India. There are no single teacher schools where multi-grade teaching by a single teacher takes place in Sikkim unlike in other states. Hence, it is assumed that overall condition for practicing effective school leadership for student learning and improve school quality is favourable in the state. Despite the progress, the state also is nearly untouched by research in school education till now. Thus, Sikkim is chosen for the present study.

Simple random sampling was used to select 20 per cent as the sample from a total population of 177 secondary and senior secondary schools put together in the state. Thirty-five school heads constituted 20 per cent of the population for data collection. A simple random sampling could give better representation of all four districts rather than stratified random sampling because of small population size and inter-district variation regarding the total number of schools.

Tool construction

A number of studies on school effectiveness and improvement carried out in 1990s identify school leadership as a critical factor among other school factors (Townsend, 2007). For the purpose of selecting leadership practices relevant to Indian context, a few meta reviews, for example, Murphy, et al., 2007, Hallinger and Heck, 1996; Leithwood and Reihl, 2003; Leithwood et al., 2006; Marzano et al., 2005; Caldwell, 2003 have been conducted. Accordingly, Shared Vision and Goal Setting (SV), Teacher Professional Development (TPD), School Climate (SC) and Child Focus (CF) were selected. School Administration (ADMN) for the present study

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[2] An educational block is declared backward on a twin criteria of female literacy rate lower than the national average and a gender gap higher than the national average. For more details visit http://ssamis.nic.in/EBB/

was included to understand the administrative practices of school heads in Indian context as most of them find it difficult to achieve efficiency.

A four-point rating scale was constructed on each of the five leadership practices aligning with leadership values, beliefs, knowledge and experience; leadership focus; context; and sources of leadership (Hallinger, 2011) which in-turn corresponds to four critical aspects on leadership knowledge, namely; knowledge for understanding, reflection, action and practice (Bolam, 1999).

The first dimension of LfL model on values, beliefs, knowledge and experience was built into statements across all five leadership practices in the rating scale based on five principles regarding school leadership of principals referring to: principals will work with staff to set clear directions for school improvements; involve actively in supporting and developing school's curricular and instructional programmes; responsibility rests with principals for student performance; develops capacity of teachers to teach and lead; and principal is school's 'head learner', not merely a principal or head teacher (Hallinger, 2003, p.5).

The second dimension, *Leadership focus* has three main paths. The first path on vision and goals was studied by constructing the rating scale on Shared Vision and Goal Setting (SV). Second path on academic structures and processes was examined by developing four rating scales, separately, *viz.*, Teacher Professional Development (TPD), Child focus (CF), School Climate (SC) and Administration (ADMN). In developing the scale, academic structures and academic processes were considered together since structures are uniform across districts in Sikkim. So, collecting data on academic processes enabled to study school head's practices precisely when positioned within these structures. Accordingly, statements of actions in the rating scale were constructed.

In studying the third path refer to *people's capacity*, with four types of people, viz., teachers and staff, parents and community, education system functionaries, and fourthly the students were considered. Rating people's capacity by itself does not render much meaning to the present study, rather it is more meaningful to capture indirectly through five leadership practices identified. So, focussing on how school heads exploited people's capacity for achieving goals which is closely related to sources of leadership was found appropriate. To accomplish this, people's capacity and the fourth dimension on sources of leadership were integrated into

different statements constructed for the rating scale across all five practices. In other words, second dimension on leadership focus constitutes the core aspect of the study into which first and fourth dimensions were interwoven. A mapping exercise was carried out between the two paths on vision and goals; and academic processes with that of leadership practices identified from the review (Table 1).

Table 1
Mapping leadership practices from meta reviews with Hallinger's leadership for learning for identifying relevant school leadership practices in Indian context

Five School Leadership Practices	Paths of School Leadership Focus	
	Path 1: Vision and Goals Path	Path 2: Academic Structures and Processes
Shared vision and Goals(SV)	Personal values of school head; professional values of school head.	Involve SMC/parents and teachers in goal setting for the school.
Teacher Professional Development (TPD)	Demonstrate high performance expectation; facilitate teachers in setting individual goals.	Challenge the performance standards of teachers and students; develop structures to foster participation in school's decisions; self effacing approach to meet the needs of people; practicing distributed leadership.
School Climate (SC)	Need to understand what drives human actions rather than a focus on the actions themselves; creating a climate of high expectation; create a productive school culture.	Practicing transformational leadership; look for underlying causes for teacher behaviour; create teams for collaborative working environment; Safe and orderly environment; a culture of concern; offer individual support; develop teacher leadership among teachers; involving community/parents to participate in schooling processes.
Chid Focus (CF)	Student motivation; developing the desire to improve the life chances of learners; foster citizenship; personal, economic and social capabilities.	Provide intellectual stimulation; student engagement; principal's strong instructional leadership focus; learning directed student assessment.
School Administration (SA)	Promote positive values; model organisational values.	Create strong network and ties with education departments; establish strong partnership with communities and parents.

Leadership focus for the present study is measured in terms of pass percentage of students in the Class X public examination conducted annually by Central Board of Secondary Education (CBSE), a national body constituted for this purpose in India.

Third dimension on context of leadership was studied separately collecting data from government records, school visits and observation of schooling processes. It comprises profiles of school heads, such as age, caste, educational qualification, and experience as teachers and school heads, characteristics of education system in the state and social, geographical and educational background of the schools.

Data collection method

School heads self-evaluated their practices on a four point rating scale constructed for the purpose by ticking any one of the four levels of practice against each statement of action. The four points were: never practiced, sometimes practiced, mostly practiced and always practiced. Each statement was assigned a score of 1,2, 3 and 4, respectively.

Method of analysis and interpretation of results

The data was analysed using Pearson's Product-Moment Correlation. The 'r' greater than 0.5 alone were considered despite the fact that lesser 'r' coefficients were also significant at 0.01 or 0.05 levels except in case of relationship with student learning. The schema of analysis was based on the paths and vehicles described in Hallinger's (2011) LfL model. It begins with the third dimension in the context of leadership, referring to the profiles of school heads, socio-cultural and geographical context, education system structure, and overall performance of education system. Later, analysis on the second dimension, leadership focus, is discussed using correlation results.

The Path of School Leadership for Learning in Sikkim: Analysis and Interpretation

Context for leadership

It refers to the contextual factors, such as staff characteristics, power structure, resource availability, power relations, micro politics and socio-economic context of the community in which school is situated. School leader and school organisation mutually influence each other. Leadership is shaped by and responds to the constraints and opportunities in the school organisation and its environment. Hence, there is a reciprocal effect of school leadership

and school organisation on student learning (Hallinger, 2011). School context also includes school size, school level, student composition, teacher quality, institutional structure and societal culture (Dimmock, 2012). In the present study, it also includes social, economic, educational, cultural and geographical contexts which significantly influence school leadership practices, leader's values, beliefs and work processes.

Geographical characteristics

Sikkim is characterised by geographically difficult terrain with hills, forests, snow and big rivers. It is the second smallest state with the lowest population having four districts called North, South, East and West Sikkim. It has 12 major regional and/or tribal languages with well-developed scripts and literature. Despite sharing international borders with Nepal, Bhutan and China, it is comparatively more peaceful, conflict free and a developed state.

Education system

The hierarchical education system at state, district, block and cluster levels follows the syllabus prescribed by Central Board of Secondary Education (CBSE) at the National level. Schooling pattern consists of two years of pre-primary, eight years of elementary, two years of secondary, and two years of senior secondary education. Human Resource Development Department (HRDD) is responsible for school education in the State. It functions through administration wing headed by Principal Secretary who in turn is assisted by special secretary, additional secretary, joint secretary, directors, additional directors and joint directors. Academic Wing is looked after by Director School Education who is assisted by Joint Directors at district and state levels. School Principals have a dual responsibility to manage the school and Cluster Resource Centres.

Schooling pattern

Altogether, there are 767 schools, out of which 406 primary (1–5 standard), 184 junior high schools (1–8 standard), and 113 secondary schools (1–10 standard) and 64 senior secondary schools (1–12 standard). There are also eight sanskrit *pathashalas* (or schools), one *gumpa* school (local traditional school) and one buddhist school in Sikkim (HRDD-RMSA, 2015). The education system as a whole from State's Human Resource Development Department (HRDD) to school level is characterised by a number of good practices. Sikkim has only four types of school categories viz., standards from I–V, I–VIII, I–X and I/VI–XII as described above. Now, most of the schools

also have pre-primary attached as a policy implemented by HRDD, a significant development to ensure universal quality elementary education.

School leadership positions

There are four designated school leadership positions according to the hierarchy of school categories functioning in the state. These are — Head Master/Mistress in the pre-primary and primary school, Head Master/Mistress in Junior High School, Head Master/Mistress in secondary school, and Principal in senior secondary school (RMSA-Sikkim, 2014–15). Out of the 767 school head's vacancies, 700 posts were filled in the year 2015 accounting for more than 95 per cent schools having designated school heads. It is an indication of higher commitment of the state to provide quality education to children, a crucial supportive environment for school heads to perform effectively to achieve desired student outcomes.

Comparison between national scenario and Sikkim education system

The educational phenomenon in Sikkim contrasts the national level scenario. At the national level, there are 10 school categories, out of which six of them are stand-alone schools with no designated school head's positions as well as without sanctioned posts. Pre-primary sections in most of these schools are absent and single-teacher schools are as high as 57 per cent (UDISE, 2013-14) which contrasts Sikkim with no single-teacher school[3] in the state. At all India level, it is approximated that more than 50 per cent of the designated school head's posts are not filled.

Structure of education system in Sikkim is comparatively more stable than that prevailing in other parts of India with essential school categories that aligns with the school pattern prescribed at the national level, i.e., 5+3+2+2. Near absence of single-teacher schools in the State is one of the most significant achievements in ensuring school quality and student learning outcomes. Promotion policies for school heads and principals to become joint directors and subsequently directors in the system have provided ample scope and encouragement for school heads to perform to their full potential in Sikkim. All these indicate good practices adopted by the education system creating an ethos of favourable work culture at the state level. In a hierarchical system, good practices at the

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[3]   These schools are small to very small schools having one or two teachers, which are set up within one kilometer norm to provide universal access to children for schooling.

system level percolate down to schools as favourable environment for school culture, conviction in practicing appropriate values and beliefs for school leadership, congenial work processes among education functionaries to support teachers and school heads. Leader's ability to interpret their context and adapt accordingly is the primary determinant of successful leadership for Learning (Dimmock, 2002).

Profile of school heads

Age, caste, educational qualification, teaching experience and administrative experience were studied to understand the basic profiles of school heads. The mean age of a school head was 46.6 years. The youngest school head was 39 years old. The maximum age of the group was 57 years. The average age of the sample was 46 years. Fifty per cent of school heads belonged to Other Backward Classes (OBC)[4], 30 per cent to the Scheduled Tribes and 20 per cent to the General category. Educational qualification of school heads was found to be higher than the essential qualifications required for the post. All were professionally trained with a bachelor's degree in education. Fifty per cent of school heads possessed one master's degree in a curricular subject. Twenty per cent of school heads were graduates in curricular subject and education. Another twenty per cent had separate master's degrees in a curricular subject and education. Five per cent possessed M.Phil and M.Ed. degrees. Another 5 per cent had acquired a Ph.D. with two master's degrees. The average teaching experience of school heads was 15.1 years which ranged from 7 to 33 years. Average experience in school administration was 5.3 years that ranged from 1.5 to 16 years.

Leadership focus, its sources, values, beliefs and knowledge

School leadership is moderated by personal characteristics of leaders themselves that influence decision making processes, providing substitutes for gaps in the information, solves problems, shapes thinking, action and the school's culture. So, for articulating the personal values and beliefs constitutes fundamental competencies of a leader, which is used in consensus with the school's values (Hallinger, 2011). Results of Pearson's Product Moment Correlation analysis indicate that there is a direct relationship between SV and TPD as the coefficient of correlation, 'r', is 0.522 with $p \leq 0.05$. TPD is directly related to SC as $r = 0.607$ with $p \leq 0.01$ and; TPD is also

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4   It is a caste Category recognised by the Government of India to include those castes under a single umbrella which were not considered as dominant yet does not belong to the lowest category of Scheduled Caste (SC) and Scheduled Tribe.

directly related to CF with 'r' = 0.523 with p≤ 0.05. There is also direct relationship between SC and CF having r = 0.538 with p≤ 0.05. So, SV is related to CF and SC mediated through TPD. And TPD, SC and CF are directly related to each other. CF and TPD are mildly related to student learning having 0.169 and 0.297, respectively, at p≤ 0.05. Student learning and school administration are not directly related to any leadership practice (Table 2) considered in the study. Thus, two kinds of relationships between different leadership practices in Sikkim can be observed, viz., direct and mediated. Dotted lines represent mediated relationship and straight lines represent direct relationships (Figure 1).

Table 2
Relationship between school leadership practices and student learning in Sikkim

	SV	TPD	SC	CF	ADMIN	SSPASS
SV	1	0.522* (0.026)	0.199 (0.428)	0.062 (0.808)	0.171 (0.497)	0.010 (0.980)
TPD	0.522* (0.026)	1	0.607** (0.008)	0.523* (0.026)	0.440 (0.068)	**0.297 (0.05)**
SC	0.199 (0.428)	0.607** (0.008)	1	0.538* (0.021)	0.355 (0.149)	0.121 (0.678)
CF	0.062 (0.808)	0.523* (0.026)	0.538* (0.021)	1	0.420 (0.083)	**0.169 (0.05)**
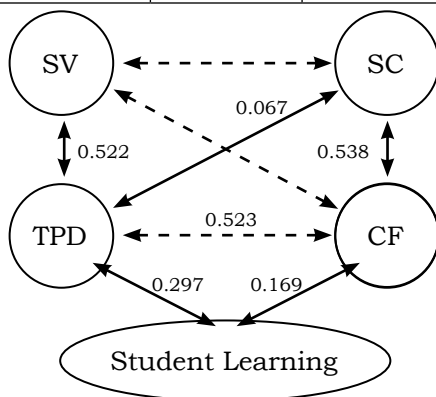
Figure 1: School leadership path for Sikkim

| **ADMIN** | 0.171 (0.497) | 0.440 (0.068) | 0.355 (0.149) | 0.420 (0.083) | 1 | 0.001 (0.998) |
| **SSPASS** | 0.010 (0.980) | **0.297 (0.05)** | 0.121 (0.678) | 0.169 (0.05) | 0.001 (0.998) | 1 |

* Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

The three main paths in LfL model (Hallinger, 2011) linking school leadership with student learning are applied to interpret these results, namely vision and goals, academic structures and processes and people capacity.

Path 1—Vision and Goals

Vision and goals are the most significant path to inspire people, ensure collective effort and provide a strong basis for decision making on various matters. Correlation results show two sets of direct relationships: between SV and TPD, and; between TPD, SC and CF. There is no significant relationship between SV and SC and SV and CF but all of them are held together as they are independently correlated with TPD. Even though SV is not directly related to SC and CF, it is mediated through TPD, implying that TPD acts as a critical entry point for SV to influence SC and CF. In other words, SV pervades all other leadership practices mediated through TPD. It means that there is an academic thrust in SV practices of school heads that provides a strong basis for academic processes to influence leadership practices on SC and CF in Sikkim. Three pillars of leadership are vision, influence and values (Bush, 2008) to inspire and support others for goal achievement (Goleman, 2002). Successful leaders contribute to student learning through a combination of strategies (Day, et al., 2010).

Path 2—Leadership and Academic Processes and Structures

Academic structures and processes are unique spaces exclusively meant for schools. Mediated effects of school leadership in this space facilitate changes in school organisation and student learning. Growth in school leadership leads to positive changes in school organisation. Conversely, changes in school organisation lead to changes in leadership (Hallinger, 2011) having the largest impact on student learning for which instructional leadership constitutes a decisive component (Halverson, et al., 2007).

Academic processes and structures, the second path, depend on efficacy of leadership who supports and participates in the professional development of teachers and staff. The strength of the linear relationship between TPD and SC is strongest ($r = 0.607$, $p \leq 0.01$) when compared to relationships between other school leadership practices. It means that TPD and SC influence each other considerably. The significant linear relationship between TPD and SC, SC and CF, CF and TPD implies that school leadership practices mediated through TPD are not only child-centric but also teacher-centric in Sikkim. The result is particularly noteworthy as it is well known that teacher quality is the most important factor that directly influences student learning. Hence, focussing on staff learning and development is integral to practicing instructional

leadership by school heads for ensuring student learning and overall development (Shatzer, etal., 2014).

Further, the indirect relationship between SC and SV mediated through TPD represents the schools' ethos for academic processes in the school. Shared vision drives the school's academic climate in which teacher development is recognised as an important leadership practice. It is particularly in agreement with the LfL model's proposition that academic improvement exercise always influences student learning, especially when the principal supports and participates in the professional learning of the staff. In the present study, school climate, teacher development and child focus practices construct these academic structures and processes driven by a shared vision.

TPD as a leadership practice connects with other leadership practices directly which implies that professional development of teachers is the most important school leadership practice in Sikkim. It influences the school climate more than any other aspect of schooling processes due to its high correlation results. An important school leadership practice influencing student learning in Sikkim is the direct involvement of school heads in teachers' professional development. Such an involvement has a significant impact on the student learning among other factors. It is also evident from the fact that Sikkim stands second highest among smaller states in the National Achievement Survey on student learning in 2014–15. In this sense, LfL also implies teacher's learning. Building a capacity of this order involves developing new knowledge, skills and competencies and new shared identity to work together (Fullan, 2008). Thus, leaders employ strategic actions that change the paths which may then translate to improvements in outcomes (Hallinger & Heck, 2011).

Student learning and School leadership practices

There is a mild correlation between TPD as leadership practice and student achievement in the present whose strength of relationship is 0.297 that is significant at 0.05 level. It means that student learning is directly related to teacher professional development as leadership practices in Sikkim. Since TPD is connected to shared vision, school climate and child focus, student learning is also indirectly related to all other factors. Hence, professional development of teachers has the most powerful influence on quality of teaching and student learning. It also concurs with international research evidences which state

that school leadership has indirect effect on student learning (Pinter, 1988; *Robinson, et al., 2008, 2009*) mainly through school and classroom conditions (Leithwood and Jantzi, 2000).

Further, child focus as a leadership practice is also mildly associated with student learning, at 0.169 with p≤ 0.05. This is unique to Indian context. It means that school head in India cannot assume that if teachers' development is taken care of, students will learn. There is an immense responsibility on the school head to personally involve and empathise with children whenever and wherever possible. Thus, child focus as leadership practice consolidates student learning while TPD contributes to student learning. We can say child focus as a leadership practice has the potential to compensate for the limitations of teacher effectiveness especially in rural and remote areas where facilities may or may not be adequate and structural issues related to social, economic, cultural and traditional contexts overwhelm children to participate regularly and effectively.

Just as in international context, leadership practices mediate academic processes through Teacher Professional Development, creating a favourable school climate, ensuring child focus, building a shared vision, setting the goals, all of which involve people's capacity and right processes even in Indian context. Thus, school head's direct engagement with teacher professional development and child focus are like two wings of a bird for ensuring student learning.

Workplace learning can be intentional or unintentional, formal or informal, tacit or explicit knowledge (Pegg, 2008). Correlation results reveal that the school administration has no significant relationship with any other leadership practices in Sikkim. LfL models also do not indicate that school administration is an important component of leadership practice. It may be assumed that school administration by HM requires no additional emphasis in Sikkim for student learning as the context of school education system in the State is characterised by well-structured processes and systems driven by technology contributing to its efficiency.

LfL is a characteristic, both in processes and goals regardless of whether its beneficiaries are students or professional community (Ezzaki, 2011). Hallinger's LfL model proposes three main vehicles of leadership for learning to traverse the three paths, viz., school culture, work processes and people that impact academic structures and processes considerably. In the present study, first

dimension on school leadership related to values and beliefs, and work processes as vehicle are considered together to interpret the results as they mutually influence each other. School culture is considered separately to give special emphasis, though it cannot be separated from other two factors. People both as path and vehicle in terms of capacity are also considered distinctly.

Values, beliefs and work processes

Significant direct relationship between SC and CF in the present study corresponds to the nature of work processes in Sikkim's schools. Similarly, significant relationship between SV and TPD signifies the nature and characteristics of values and beliefs of leaders for student learning and school quality. The predominant values practiced by school heads in Sikkim are reflected through child-centric and teacher-centric approach adopted in the schools as evident from the correlation results related to significant relationships between SC, CF and TPD. Therefore, the present study shows that leadership values and beliefs direct the work processes for student learning. Conversely, work processes provide feedback to the values and beliefs practiced in the schools. They indicate the strength of leadership values, beliefs and work processes in creating a school culture for student learning. Leadership practices, academic processes and structures discussed above also give further impetus to values, beliefs and work processes practiced and their mutual influence upon each other. In other words, leaders ground their actions in clear personal values that can be pursued in consonance with the professional values defined by the dominant government policies (Bush, 2008).

School culture

Developing an organisational culture of working with and through others focussing on learning and teaching to build academic commitment is an important factor among school heads (Day etal., 2010; Sammons et al., 2011). In the present study, school culture refers to receptivity in the school for change-initiatives and innovations by the school head, teachers, students and community to establish effective processes for student learning. The manner in which values are practiced, and beliefs are held and tested, contributes to the nature and characteristics of school culture. School culture so created, in turn, influences leadership practices and values, work processes, experience and knowledge. Education is a highly intellectual and caring enterprise wherein

teachers engage in rational dialogue with mutual respect and trust (Fullan, 2001). School heads need to distinguish between ability to learn and opportunity to learn that creates inclusive classrooms for learning (Shields and Mohan, 2008). Thus, it is central for the school head to provide learning environment in which all children experience success in learning and all teachers experience professional development.

Change initiatives and innovations influence the formation of academic climate resulting in a culture for learning in the school. In the schools visited, it was observed that nurturing and sustenance of an intellectually vibrant academic climate by school heads has contributed richly to school culture. It includes school heads undertaking international collaborative projects for improving student learning and supporting good teaching practices among teachers not only in their schools but also collaborating with other schools in their vicinity. It has resulted in the formation of unique school culture characterised by a socio-emotional connect between school head, teachers and students in an intellectually vibrant environment for learning. In another example, a school head in a tribal residential school in Gangyap, an interior village in west Sikkim District, demonstrated excellence both in sports and academic learning. The students won the national level basket ball championship consecutively for three years and at the same time excelled in academic subjects with high scores during the year 2012–15[5]. An important characteristic of LfL is innovation, based on taking initiatives by individuals or groups and directed to the improvement of students' learning (Ezzaki, 2011).

Path 3—People

People are considered both as a path and as a vehicle in the model. Results imply that school leadership practices related to people (i.e., TPD), processes (i.e., CF and SC) and vision (i.e., SV) closely interact with each other to create a people-centric approach wherein teachers and students are valued in Sikkim. Results from the present study align with model's emphasis that capacity building not only focusses on organisation but also on people. Dampster (2015) emphasises human agency as an important component for achieving LfL. Thus, sources of leadership, such as situational leadership addresses the need of the hour with a layered approach

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[5]   Information shared by School Principal in the video NBA—'Let's take a trip to Sikkim and watch how the game'... mp4 accessed from youtube.com

having different foci, flexibility and sharing leadership with others in the school (Hallinger, 2011).

The interpretations derived above using the results lead to the following conclusion— school leadership practices in Indian context are influenced by values and beliefs of school leaders emphasising on people development to *mediate* the schooling processes adopting a balanced approach between child-centric and teacher-centric practices that direct them to initiate teacher professional development within the school for which building a favourable school climate takes place through shared vision and goal setting, that emerges as an important academic structure and a process, due to which school culture so formed embeds in it the change processes and innovations, thus, empowering the very school head through his/her own leadership practices to directly and indirectly influence student learning. This is precisely the leadership for learning as practiced in Indian context, specifically, Sikkim.

Findings

The present study attempts to explore so far the least-explored area of school leadership for learning in Indian context by considering a high performing state of Sikkim. Results show that school leadership practices in Sikkim mainly focus on teacher professional development and focusing upon the child for achieving higher school quality. Shared vision as a school leadership practice is indirectly related to other leadership practices, namely; school climate and child focus mediated through teacher professional development.

Results clearly indicate that school leadership in Indian context is directly and indirectly related to student learning influenced by values and beliefs, mediated through work processes that direct teacher professional development creating and using relevant and flexible academic structures for realising a school climate and a school culture that empowers school leader to focus on children, thereby, influence student learning. School heads in Sikkim continue to retain the erstwhile practice of involving themselves in core academic processes, the teacher professional development that guarantees student learning. This concurs with one of the LfL's characteristics that it intends to overcome the pace and quality of learning through workplace learning (Jwan and ong'ondo, 2011, p.410). Instructional leadership of school heads is an important

practice to ensure student learning in which creation of school climate and child focus constitute core academic functions for effective work processes which would in turn influence values, beliefs in adopting people-centric approach in their leadership practices. Therefore, it is crucial to position school head as lead learner, leading the teacher professional development within the school. Academic processes ought to be integrated with school improvement plans through shared vision exercises led by the school-head with autonomy and flexibility to improve school climate and necessary attention to children, influencing the school culture, ethos, and child-centric approaches that transform school's vision, values and beliefs. Results of the present study testify to this conclusion as TPD is related to school climate and child focus directly and that the significance of relationships between TPD and SC as leadership practices is the highest amongst all relationships studied.

School heads in Sikkim adopted people development approach to leadership practices emphasising on vision, teacher development, child centric and school academic climate which have influenced the work processes and school culture. Leaders best affect student learning outcomes when— they have an agreed and shared moral purpose; there is a disciplined dialogue; they plan, monitor and decide based on evidence; they are active professional learners with teachers; they enhance conditions for learning, manage and monitor teaching, use distributive leadership, connect with parents and community (Dampster, 2015). In order to reap rich dividends from people development approach, positioning school head as central to school transformation and development is essential, especially, when systemic reforms have failed to bring about institutional change. A shift towards institutional development in which the role of school leadership with schools as primary institutions for all educational change processes is crucial to address the low levels of student learning.

Actions Proposed: School Leadership Movement as the Path for Leadership for Learning

Given the diverse socio-cultural context in education system, a movement is necessary to create awareness, generate discussion and provide inspiration for every school head as they are the lowest in the hierarchy of leadership positions in education system, many of whom work in remote areas challenged by social, economic, and

geographical circumstances experiencing seclusion from the larger education with bare minimum support and facilities from the system. The total literacy campaigns (TLC) created one such stir in the country in the late 1980s and 1990s hastening the process of literacy levels in the country. Drawing the experience from this initiative and taking advantage of advanced technology, a movement for leadership development may be worth trying in Sikkim as well as other states in India. Underneath the movement, purpose, context and human agency for LfL is present.

School Leadership Movement (SLM) is about creating an indigenous process for articulating and co-crafting the meaning, scope, objectives and approaches for effective school leadership practices in the education system for school heads, stakeholders and experts for improving student learning by participating together necessitating a shift in attitudes, values, notions and beliefs that influences transformation of schooling processes crossing the threshold level for achieving higher student learning. It is a movement on a leadership continuum in the education system for those working from various hierarchical leadership positions to dovetail into the school to support and share responsibility with the school head to lead critical changes that strengthens academic leadership, creates shared vision and replaces the notion of leader-follower with a collective of leaders to be at equidistant from school. It has the potential for knowledge creation, action, learning, sharing, interacting, and practicing by providing platform for reflection of one's attitudes and perceptions, facilitating in developing a vision, motivating members to assume leadership beyond positional roles and moving beyond micromanagement of routine school functions. For the school head, this movement is an internal journey from being an administrator and a manager, to reflective actor, a meta-cognitive thinker and an *'aware-d'* change maker (Mythili, 2015) who can lead school change by developing a shared vision, creating an ownership among those who are related to school directly or indirectly for achieving student learning. In this sense, SLM becomes a path to be traversed. Therefore, objectives of SLM require studying real school practices, identifying best practices and innovations, deriving insights from experiential learning and small changes initiated by school heads in diverse school contexts.

These are to:

- provide a platform for exchanging perceptions and perspectives about school leadership among school heads, education functionaries and stakeholders.
- study, understand, contextualise and practice different leader ship processes and styles from the available literature in different country contexts.
- identify best leadership practices that make a difference to student learning.
- develop a state specific perspective on school leadership and its development.
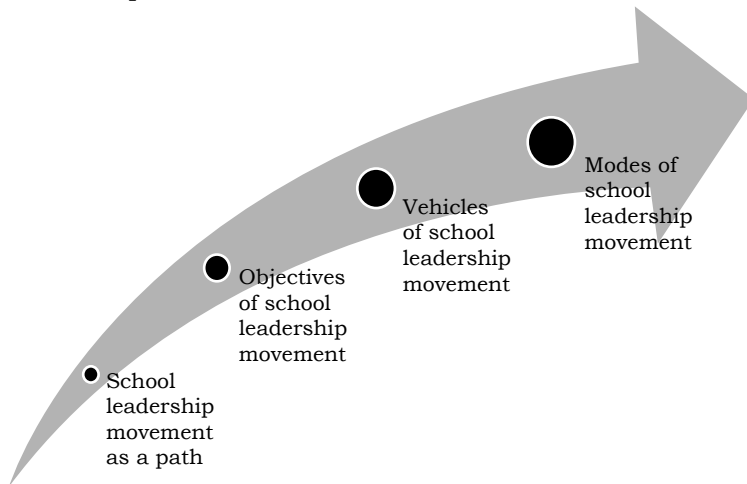
Figure 2: School leadership movement: A four fold approach

To fulfil the objectives of the movement, a four-fold approach is proposed here—Path→Objective→Mode→Vehicle for school Leadership development (see Figure 2) that includes—stakeholder participation, expanding the scope of SSA and RMSA programmes, people development and school—university interaction for LfL. These are four vehicles of SLM which aim to address the four modes of school leadership development given by Bolam (1999). Each mode of development is related to a particular vehicle for realising the objectives of SLM to emphasise the strength of traversing the path with its uniqueness. It is summarised briefly in Table 3 followed by description.

Table 3
Four-fold approach to school leadership movement in Sikkim:
A consolidation

Policy implication towards building the pathways	Policy actions as a vehicle ⟶	SLM objectives ⟶	Mode of leadership development ⟶
Expand the base for school leadership and its development	Stakeholder participation	Provide platform for exchange of perceptions, perspectives on school leadership	Knowledge for improvement of practice
Position of School head as the leader for learning	Expand the scope of SSA and RMSA programmes on school leadership development	Study, understand, contextualise, practice leadership styles and processes	Knowledge for action
TPD to be built into annual school development plans and school head as an academic leader for teacher professional development	Adopt people development approach	Identify best leadership practices that make a difference for student learning	Knowledge for reflexive
Redefine the roles and responsibilities of school head as an academic leader.	Establish school-university interaction for initiating a perspective shift in the knowledge, practice and perspective	Develop a state specific perspective on school leadership and its development	Knowledge for understanding

Vehicle 1: Stakeholder participation: Human Development Report, (2014) for Sikkim was created using participatory approach by creating a platform for people's participation called Information Education Communication (IEC). Leveraging on the existing readiness for a participatory approach in the State, School Leadership Movement can be initiated adapting the IEC suitably to facilitate the participation of school heads, educational administrators and system level officials, community, parents and students to discuss on implementing LfL through awareness creation, public engagement and participation in school leadership development programmes, voluntary participation, creating a discourse by organising 'Confluence of School Leadership', which

would eventually result in a collective responsibility of the school and people. Thus, stakeholder participation facilitates in providing a broader base for LfL in Sikkim. This approach aims to address the first objective of SLM that seeks to develop leadership through improvement of practice suggested by Bolam (1999).

Vehicle 2: Expanding the scope of central programmes: All school heads have to undergo a 10-day residential training followed by three project-cycles of project work (NCSL-NUEPA, 2014) under School Leadership Development Programme through SSA and RMSA. The programme can be expanded to include the teacher professional development in which proportion of time spent for theory is decreased and practice is increased gradually to align leadership perspectives, theory and research with people and practice. This approach addressing the second objective of SLM relates to *knowledge for action*, one of the four modes of leadership development proposed by Bolam (1999).

Vehicle 3: People development: School Leadership Movement as a discourse of *People Development* refers to improving leadership styles, processes and means for changing notions, beliefs and assumptions, creating a sense of ownership and so on through meta-cognition, awareness, constructing indigenous knowledge and creating an array of practices that relate with political, economic, cultural and social contexts, thus referring to conscentisation for leadership development by actors and stakeholders. Periodic study classes held once in 10 days at cluster and block levels on school leadership practices and self development coupled with the use of ICT and electronic gadgets, translating insights from the study classes into practices, identifying innovative leadership practices, bringing out a souvenir on school leadership at cluster/block levels, and so on to create indigenous knowledge on school leadership to address differentiated needs of school leaders. This approach largely addresses the third objective of SLM without excluding the first two, adopting a multi-pronged approach for leadership development, which Bolam (1999) calls *Knowledge for reflexive.*

Vehicle 4: School–University connect for LfL: The indigenous knowledge so created on school leadership must also influence the discourses taking place in the teacher education in universities and institutions and vice-versa. The dynamic interaction between discourses taking place at the school level, education departments and university needs to find a predominant place to bring together

theory and practice to influence and inform each other. In a significant move, the Central Government has initiated the setting-up of Leadership Academies to develop academic leadership since 2015 in different institutions and universities in the country in the area of higher education. However, this initiative continues to neglect the role of school head as a critical academic player who also needs to align with higher education in which teacher education is situated. School heads must be included as critical stakeholders in the leadership academies for developing academic leadership that contributes to student learning and learn from universities to undertake teacher professional development back in the schools. Establishing linkages between the university, State Council for Research and Training in the states, the school and Departments of Education to translate theories into practices and vice-versa has immense scope for creating indigenous knowledge on school leadership for action and learning, thus, bridging the gap between teachers, administrators, teacher educators and university faculty. This addresses the fourth objective of SLM, which according to Bolam's (1999) is 'knowledge for understanding'.

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Mainstreaming Out of School Children with Community Support

A Success Story

Kamala Kanta Tripathy*

ABSTRACT

The persistence of poverty is the most complex problem in India. One –third of the world's 1.2 billion extremely poor are living in India. They are leading a miserable life. Education is the only weapon to eradicate poverty. But India has not been able to achieve quality elementary education. Of the factors blocking the achievement of quality elementary education for all, a high dropout rate of students is significant one. The present dropout rate at the primary level is 18 per cent. This study was undertaken to address this issue in the States of Uttarakhand and West Bengal. Out of school children in the age group 6–14 were identified and admitted into school with the support of community leaders in each village. The outcomes of the study were that 192 (112 boys and 85 girls) out of school children were admitted into schools in class appropriate to their age in both the states. An attempt was also made to bring about a change in the mindset of the stakeholders through awareness meetings regarding need and importance of quality education for all and evil consequences of child labour. An analysis of their response in the post test revealed that there was a substantial change in the mind-set of stakeholders regarding need of education for each child.

Persistence of Poverty

The most complex problem in India is poverty. Millions of people are living in abject poverty. Many of them do not have a roof over their head. They are seen sleeping in big cities on the roadside even in extreme winter with or without any blanket over them. It is estimated that out of 133 crore people living in India, "about

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30 per cent (40 crores) of them are living below poverty line" (*Times of India, 4 July 2015*). Having two meals a day is an issue for them.

The UN Millennium Development Goals Report (2014) highlighted that India is home to the largest number of poor with "one-third of the world's 1.2 billion extremely poor living here". The report further highlights that in India, poverty reduction has been sluggish. It, however, came down from 49.4 per cent in 1994 to 42 per cent in 2005, and 32.7 per cent in 2010. This means that about 30 per cent of the people are still very poor' (Times of India, 17 July 2014). They must be leading a very miserable life. 'The *Global Hunger Index* (GHI)' report released in 2015 reported that about a quarter of the world's hungry or 210 million are in India alone. Poverty contributes to under-nourishment of children, which in turn affects adversely their learning capacity' (Times of India, 15 October 2013).

How to Eradicate Poverty?

Education is the only weapon to fight poverty. Education develops in an individual knowledge and skills essential for her/his economic development and that of the country too. Therefore, a quality elementary/secondary education for all is absolutely necessary to address the problem of poverty in the country. Since independence the Government of India has been making incessant endeavours to achieve quality education for all. The *National Policy on Education* (1986) envisaged that the country would achieve primary education for all by 1990 and elementary education by 1995. But the country could not achieve the goal. After Dakar Convention (2000), the country envisaged that it would achieve quality education for all by 2015. It launched its flagship programme *Sarva Shiksha Abhiyan* (SSA) in 2001. Despite the best endeavours, India could not achieve the goal.

Factors Contributing to Non-Achievement of Quality Education for All

There are two main factors; un-enrolled children in school and a high dropout rate. Over the period, there has been quantitative expansion of facilities for education. As a result, barring a limited number of inaccessible and extremely remote areas there is a primary and upper primary school within a radius of one and three kilometers from the residence of a child respectively. "As a consequence, the net enrolment ratio has gone up to 90 per cent. Only 10 per cent of children at the age of 6+ are unreached"

(NUEPA, 2015). Reaching them is a complex issue which needs to be addressed on a priority basis. This, however, differs across states and districts within a state.

Besides the unreachable children, the issue of high dropout rate particularly at the primary level persists. Out of 100 children admitted in Class I, all of them do not complete successfully even basic education which is highly essential to equip young children with requisite knowledge and skills to earn better livelihood in their later lives. The latest data which flow from DISE reveal that 18 per cent children drop out of school before completing primary education successfully (NUEPA, 2015). This percentage refuses to be abated significantly due to many uncontrollable variables. However, the dropout rate also differs across states and districts within a state. There is an urgent need to check and wipe out the phenomenon of dropout and bring all the out of school children back to school.

Quality of Education is Low

Besides, not achieving education for all, the quality of education has not kept-pace with the quantitative expansion of education facilities. Rather, the quantitative expansion has adversely affected the quality of education. As a consequence, the quality of education is quite low. The UNESCO in its EFA Global Monitoring Report (2013–14), highlights that there is a learning crisis in India. This is because the report further highlights that 90 per cent of children from disadvantaged sections of society remain illiterate even after four years of schooling. The report concludes that children from the disadvantaged sections of society are the worst hit by low quality of education.

India is now a signatory to the implementation of Sustainable Development Goals (SDGs) by 2030. Under these SDGs, India is to achieve quality Secondary Education for all by 2030. It appears today that this is a herculean task. India cannot achieve quality secondary education for all unless it achieves quality elementary education for all. As such, the country needs to address on a priority basis the barriers blocking the achievement of quality elementary education for all.

Rationale for the Study

A study was conducted to address the problem of out of school children in the age group 6–14. It was felt that education for

all cannot be achieved unless all children seek admission in a school. Further, education for all will be possible only if parents and guardians realise the need and importance of education for each child to acquire knowledge and skills essential to earn better livelihood in life. This knowledge and skills help an individual to eradicate his/her poverty. It was also felt that parents need to be sensitised that child labour does not mitigate/eradicate poverty at all. It rather perpetuates poverty.

It was further visualised that the task of identification of out of school children and their mainstreaming in schools is not possible without the support of the community leaders, parents and guardians. Therefore, the support of these personnel was visualised to be of utmost importance to realise the objectives of the study. The study was launched in the states of Uttarakhand and West Bengal which are relatively educationally backward States.

Objectives of the Study

The objectives of the study were to:
• Identify out of school children in the age group 6–14 in the selected area of the project;
• Mainstream identified out of school children into their nearby school; and
• Bring about a change in the mindset of parents/guardians of students, community leaders, villagers about need and importance of quality education for all through organising rallies and awareness meetings.

Design of the Study

The study was implemented in the states of West Bengal and Uttarakhand. The operational area of the project in both the states comprised two districts in each state, and two blocks within one district. In each block, a number of schools constituted the operational area of the project. The operational area in each state is mentioned below:

West Bengal
The names of the districts and blocks in West Bengal which formed the area of operation are mentioned in Table 1.

Table 1
Districts and blocks covered in West Bengal

District	Block
North 24 Parganas	i) Barrackpore-I
	ii) Barrackpore-II
Bankura	i) Ranibandh
	ii) Raipur Circle

In each block, six villages were selected.

Uttarakhand

The districts, blocks and villages which constituted the operational area of the project are mentioned in Table 2.

Table 2
Districts and blocks which constituted the operational area of the study in Uttarakhand

S/N	District	Block
1.	Dehradun	i) Raipur
		ii) Doiwala
2.	Haridwar	i) Bhadrabad–II
		ii) Narsan

In each block, 10–11 villages were selected. These villages constituted the operational area of the project.

Tools Developed

The following tools were developed for collecting the requisite data for the study.

1. **Proforma – I,** Recording particulars of identified out of school children admitted into schools in their neighbourhood

2. **Proforma – II,** Consolidated report of out of school children admitted into schools

Questionnaires

1. **Pre-test —** Elementary education

2. **Post-test —** Elementary education

Questionnaires – Pre-test and Post-test for Elementary Education

One of the approved activities of the study was to generate awareness among parents/guardians, teachers and members of

the PTAs, MTAs, SMCs, VECs, etc., about the need and importance of education for all for alleviating poverty by developing life and livelihood skills in children. Therefore, two tests — pre-test and post-test were developed to determine the effectiveness of the orientation of the said personnel in changing their perceptions about the importance of elementary education.

Training of Resource Persons

To facilitate smooth process of identification of out of school children in the selected area of the project/study, a body of resource persons was created in both the states — Uttarakhand and West Bengal and provided the necessary training.

Training of Surveyors

Training programs were organised for training of surveyors in both the states. The resource persons sensitised them about the objectives of the study, its need and importance in the present day context and their role in the household survey to be undertaken for identification of out of school children in the catchment area of the project with the support of community leaders. They were advised to have a meeting with the community leaders and seek their support for the identification of the out of school children in the age group of 6–14 years. They were provided necessary guidelines to be followed for the household survey for seeking the cooperation and support of parents/guardians. In West Bengal, 15 surveyors and Uttarakhand 22 surveyors were appointed for door-to-door survey to identify out of school children in the age group of 6–14 years.

Identification and Mainstreaming of Out of School Children

The trained surveyors went from door-to-door in selected villages of both the states — Uttarakhand and West Bengal with a view to identify out of school children in the age group of 6–14 years. They contacted community leaders in each village and sought their support in the identification of out of school children before undertaking the survey. The identified out of school children were admitted into nearby government schools in the class appropriate to their age.

West Bengal

The data with regard to identified out of school children in all the four blocks of both of the selected districts are presented in Table 3.

Table 3

Out of school children admitted into schools in North 24 Parganas and Bankura Districts

Name of the district	Name of the block	No. of house holds visited in the block	No. of children below 14 years of age in the house holds		No. of children below 14 years not going to School		No. of the out of school children in different age groups			No. of the out of school children re-admitted into schools		No. of the children admitted in different classes							
			Boys	Girls	Boys	Girls	6-8	8-10	10 to 14	Boys	Girls	I	II	III	IV	V	VI	VII	VIII
North 24 Paraganas	Barrackpore-I	4,067	849	817	8	10	4	9	5	8	10	3	5	5	3	2	-	-	-
	Barrackpore-2	4,005	662	641	12	6	1	8	9	12	6	1	0	7	9	1	-	-	-
Bankuara	Ranibandh	3,887	1,302	1,223	14	6	9	10	1	14	6	3	5	6	6	-	-	-	-
	Raipur	3,807	886	865	5	7	3	7	2	5	7	3	1	3	3	2	-	-	-
		15,766	3,699	3,546	39	29	17	34	17	39	29	10	11	21	21	5			

Table 3 manifests that 68 (39 boys and 29 girls) out of school children were identified. All of them were admitted into the class as mentioned in the said table.

Uttarakhand

In Uttarakhand, two districts Dehradun and Haridwar were covered. The data with regard to out of school children in blocks of Raipur and Doiwala of Dehradun district is presented in Table 4.

Table 4

No. of out of school children identified and admitted into schools of dehradun district

Name of the block	No. of house holds visited in the block	No. of children below 14 years not going to school		No. of the out of school children in different age groups		No. of the out of school children readmitted into schools		No. of the children admitted in different classes							
		Boys	Girls	6-11	11-14	Boys	Girls	I	II	III	IV	V	VI	VII	VIII
Raipur and Doiwala	1,568	63	42	97	8	28	21								

Table 4 manifests that 105 out of school children were identified from 1,568 households. Of these, 97 children were in the age group 6–11 and eight children in the age 11–14. Of these, 49 (28 boys and 21 girls) were admitted into schools in the class appropriate to their age. The rest could not be admitted as most of these children were from families of migrant workers.

Haridwar District

In Haridwar district, two blocks — Bahadrabad-II and Narsen were selected. In the selected villages of these blocks, surveyors went from door-to-door to identify out of school children in the age group 6–14 and admitted them into nearby government schools in class appropriate to their age. The data in this regard are presented in Table 5.

Table 5
Out of School Children Identified and Admitted into Schools

Name of the block	No. of house holds visited in the block	No. of children below 14 years of age in house holds		No. of children below 14 years not going to school		No. of the out of school children in different age groups		No. of the out of school children admitted into the school		No. of the children admitted into different classes							
		B*	G**	B*	G**	6 to 11	11 to 14	B*	G**	I	II	III	IV	V	VI	VII	VIII
Bahadrabad-II	2,661	1,983	1,687	44	32	59	17	28	21	15	19	10	4	1	0	0	0
Narsan	3,754	2,529	2,124	18	14	31	1	17	14	3	11	9	7	1	0	0	0
Total	**6,415**	**4,512**	**3,811**	**62**	**46**	**90**	**18**	**45**	**35**	**18**	**30**	**19**	**11**	**2**	**0**	**0**	**0**

Note: * Boys, ** Girls

Table 5 manifests in both of these blocks 108 out of school children were identified. Of these, 80 (45 boys and 35 girls) were admitted into schools in the class appropriate to their age.

Awareness Meetings for Bringing about a Change in the Mindset of Stakeholders Regarding Importance of Quality Education for All

Awareness meetings were organised in all the four blocks of both the states — West Bengal and Uttarakhand. Dates and venue of these meetings are mentioned in Table 6.

Table 6
Awareness meetings held in both the states

State	District	Block	Venue	Date	Number of Participants
West Bengal	24 Paragnas	Barrackpore-I	Naihati Municipal Hall	14.09.2016	About 85
		Barrackpore-II	Khandola Art Gallery	13.09.2016	About 95
	Bankura	Ranibandh	Rudra High School	15.09.2016	About 160
		Raipur	Raipur High School	18.09.2016	About 100
Uttarakhand	Dehradun	Doiwala	Cluster Resource Centre, Majri Grant, Vikas Khand	08.11.2016	48
		Raipur	Cluster Resource Centre, Nangal, Vikas Khand Hatnala	09.11.2016	49
	Haridwar	Bahadrabad-II	Government Primary School Alipur	6.12.2016	43
		Narsan	GPS Gopalpur	07.12.2016	40

In all these meetings, participants comprised parents/guardians of students, members of School Management Committee (SMC), teachers' members of the Parents Teachers' Association (PTA), Community Leaders, etc. Leaders of the association, Block/District Education officers addressed the participants.

They requested the parents/guardians to desist from sending any of their children for working as a labourer or a maid-servant in any household. This deprives them of education which is highly essential for their all-round development. It was also intended to remove the myth that child labour reduces poverty of the family. They were sensitised that child labour in fact perpetuates poverty in the family. This is because many child labourers end up to be a labourer.

Impact of Orientation on the Mindset of Participants

All the participants of the programme were administered questionnaire pre-test elementary education before the commencement of the programme and post-test elementary education towards the end of the programme. The objective of administering these tests was to determine whether the programme brought out any change in participants' perceptions/ mindset regarding the importance of quality elementary education for each child. The responses of participants with regard to pre-test and post-test questionnaires were analysed. The findings in this regard are mentioned below:

In Raipur, Diowala, Bahadrabad and Narsan blocks of Dehradun and Haridwar districts in Uttarakhand before training 89 (63.5 per cent) out of 140 participants reflected their concern about the need to increase the enrolment rate and to check the dropout rate at the primary level. After training 128 (97.7 per cent) out of 131 reflected their concern in this regard. This change in the mindset of stakeholders reflects the outcome of training. Similarly, in all the four blocks of Dehradun and Haridwar districts, there was a change in the perceptions of the participants regarding the role of child labour in reducing poverty of the family. Before training 72 (51 per cent) out of 140 participants expressed that child labour reduces the poverty of the family. After training 126 (96 per cent) out of 131 respondents reported that child labour does not reduce poverty of the family. Only five participants reported that it does reduce poverty of the family.

West Bengal

Before the orientation, 112 participants (77.7 per cent) reported that child labour does not reduce poverty of the family. The remaining 32 participants (22.3 per cent) reported that it does reduce poverty. After their orientation, all of them reported that child labour does not reduce poverty of the family.

In West Bengal, before the orientation, all the 144 participants reported that they do perceive their role in achieving quality education for all. But only 12 participants (8.3 per cent) specified categorically that they were doing something in this regard. The rest 132 participants (91.7 per cent) simply mentioned that there is a need to generate awareness among parents and guardians about the importance of quality education for all and the ill-effects of the child labour. After this orientation, a substantial change was observed in participants' mind-set. Almost all, i.e., 129 (89.6 per cent) specified that they would educate parents and guardians of their students in this regard and organise rallies to eradicate the child labor.

Rallies

Rallies were also organised in all the selected blocks in both the States West Bengal and Uttarakhand. The objective of these was to sensitise parents/guardians, teachers', social workers, community leaders and villagers about the need and importance of quality education for all. Besides, it was intended to sensitise parents/guardians to desist from sending any of their children for work either in a factory/industry or as a maid servant in any household. The rallyists carrying banners and play cards and were raising the following slogans. In Uttarakhand, these slogans were in hindi language:

- Quality education for all.
- Each child has a right to quality elementary education.
- Education is the only vaccine to eradicate poverty.
- Child labour increases poverty rather than reducing it.

Main Findings and Conclusions

The following were the main findings:

In Uttarakhand, 129 (73 boys and 56 girls) school children were admitted to schools. In West Bengal 68 (39 boys and 29 girls) out of school children were admitted to schools. In all, in both the States of Uttarakhand and West Bengal 197 (112 boys and 85 girls) out of

school children were admitted into schools with the support of the community. But for this project many of them would have become victim of child labour and ended up as labourer throughout their lives. The project has been a boon for them.

In Raipur, Diowala, Bahadrabad and Narsan blocks of Dehradun and Haridwar district in Uttarakhand state before orientation 89 (63.5 per cent) out of 140 participants reflected their concern about the need to increase the enrolment rate and to check the dropout rate at the primary level. After orientation 128 (97.7 per cent) out of 131 participants reflected their concern in this regard. This change in the mindset of stakeholders reflects the outcome of orientation. Similarly, in all the four blocks of Dehradun and Haridwar districts, there was a change in the perceptions of the participants regarding the role of child labour in reducing poverty of the family. Before training 72 (51 per cent) out of 140 participants expressed that child labour reduces poverty of the family. After orientation 126 (96 per cent) out of 131 respondents reported that child labour does not reduce poverty of the family. Only five participants reported that it does reduce poverty of the family.

Before the orientation all the 144 participants reported that they do perceive their role in achieving quality education for all. But only 12 participants (8.3 per cent) specified categorically that they were doing something in this regard. The rest 132 participants (91.7 per cent) simply mentioned that there is a need to generate awareness among parents and guardians about the importance of quality education for all and the ill-effects of child labour. After this orientation, a substantial change was observed in the participants' mindset. Almost all, i.e., 129 (89.6 per cent) participants specified that they would educate parents and guardians of their students in this regard and organise rallies to eradicate the child labour.

Conclusion

The following conclusions were drawn from the implementation of the project:

- Community plays a pivotal role in persuading parents/ guardians to admit their out of school children in the age group 6–14 years into school.
- State authorities at different levels should seek community support to enroll all the children at the age 6+ and above into school. This step would facilitate the achievement of the goal — Education for All.

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Representation of Dalits in Higher Education

A Case Study of Kajipur Village in Uttar Pradesh

SUBHASH KUMAR* AND NOKLENYANGLA**

ABSTRACT

The core objective of Indian education has been to provide equal access to education for all. In India, higher education system belongs to social sector as education is considered to be a public good. For years, the country has been trying its level best to elevate the weaker section of society. However, Indian society is characterised by a high degree of structural inequality based upon the organisation of people into caste (the social structure of Hindus who comprise more than 80 per cent of the Indian population) and various ethnic groups, which makes it an arduous task for the State to create a level playing field even in the higher education system. Hence, this paper attempts to analyse different socio-economic factors which affect the access to higher education. The main objective of the paper is to understand the Dalit student's participation in higher education especially the girls in Kajipur village in Uttar Pradesh, India. The data incorporated into this research are both primary and secondary. Primary field data were collected by the researchers in the year 2017 and secondary data have been attained from official government reports. Furthermore, the paper discusses primary findings and concludes by highlighting a new emerging trend of disparity in education-information and communication divide.

Keywords*: Higher education, Gender, Woman/Girls education, Participation, Dalit.*

Introduction

Dalit ('oppressed or broken') is not a new word. Apparently, it was used in 1930s as a Hindi and Marathi translation of the

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term 'Depressed Classes,' a term, British used for what is now called the Scheduled Castes. The word was also used by B.R. Ambedkar in his Marathi speeches (Pradhan, 1986, p.125). In *The Untouchable,* published in 1948, Ambedkar chose the term 'Broken Men', an English translation of 'Dalit', to refer to the original ancestors of India. Dalits Panthers revived the term and in their 1973 manifesto expanded its reference to include the Scheduled Tribe, 'neo-Buddhist', the working people, the landless and poor peasants, women, and all those who are being exploited politically, economically, socially and in the name of religion (Omvedt, 1995, p.72). The 1881 census simply described and enumerated caste in various provinces and states. Varna categories were often used to group them and so the Dalit caste generally appeared at or near the end of the lists. The 1891 census, on the other hand, adopted a standard classification of caste according to the occupation assigned to each by tradition. Dalit caste was thus included within occupational categories such as field labourers, leather-worker, scavengers, and watchman and village menials. The 1901 census classified hindu castes in order of social precedence. Under special instruction from the Government of India which wanted more informations about them, an entire appendix of 30 pages in the 1931 census was devoted to what J.H. Hutton, the Census Commissioner chose to call the 'Exterior Castes' (Zelliot, 1978). Thus, the 1931 Census referred dalits as 'exterior castes', the Hindu castes occupying a 'degraded position in the Hindu social scheme' (Pradhan, 1986, p.197).

However, a number of recent sociological studies indicate that, despite all the changes which have occurred in the past 60 years, this continues to be what sets. Dalits apart. The Government of India constitutionally mandates elimination of discrimination. The contemporary discrimination policies envisage a belief that if Dalit can raise their class status through educational, employment and political opportunities opened up to them, then their caste status defined in terms of interaction with people belonging to other castes will also be raised. Nevertheless, it is worth mentioning that for this research only the Scheduled Castes have been considered as Dalits.

Education

Etymologically, the word 'Education' is derived from three different Latin words, *Educare* (to bring up, to nourish), *Educere* (to lead

out, to draw out) and, *Educatum* (is an act of training or teaching). The definitions of education emphasise the all round development of the learners (Thakur and Berwal, 2007). It is also considered the principal responsibility of a society to nurture its offsprings — future generations and give a positive direction to their developmental needs through education (Dhillon, 2010). Higher education is the basis of future innovation and progress. India has made a remarkable progress in enrolment as well as spread of higher education since independence.

Education creates opportunities to access a better quality of life and is a parameter of human well-being. According to UGC (2013), the higher education system in India has grown in a remarkable way, particularly in the post-independence period, to become one of the largest systems of its kind in the world. However, the system has many issues of concern at present, like financing and management including access, equity and relevance, reorientation of programmes by laying emphasis on health consciousness, values and ethics and quality of higher education together with the assessment of institutions and their accreditation. These issues are important for the country, as it is now engaged in the use of higher education as a powerful tool to build a knowledge-based information society of the 21st century.

Deshpande (2001) developed a Caste Development Index (CDI) using the 1992–93 National Family and Health Survey data. While the study recommends the inclusion of caste as an indicator of the stratification of the Indian population, it shows that there are regional variations in the status of SCs/STs in terms of CDI. Sundaram (2006), using some basic statistics from the 55th round of NSSO data, shows, if we consider only that section of the population which is eligible for higher education (i.e., those who have passed higher secondary or equivalent examination), then the educational achievements do not vary much with their poverty levels among SCs/STs/OBCs in urban or rural areas. Which means once the SC/ST/OBC groups cross the secondary education level; their decision to go for higher education is not significantly affected by their economic conditions anymore.

Status of Higher Education in India

National Youth Policy (2014) defines youth as those aged between 15 to 29 years. This age group constitutes 27.5 per cent of India's population. To calculate the Gross Enrolment Ratio (GER) in

Higher education, UGC takes 18 to 23 years age group as the total population. Total enrolment in higher education has been estimated to be 34.6 million with 18.6 million boys and 16 million girls. Girls constitute 46.2 per cent of the total enrolment.[1]

Table 1
Gross Enrolment Ration (GER) of SC, ST and All

Level	All			SC			ST		
	Boys	Girls	**Total**	Boys	Girls	**Total**	Boys	Girls	**Total**
I-XII	83.3	85.9	**84.6**	91.1	93.3	**92.2**	87.5	86.0	**86.8**
Higher Education	25.3	23.2	**24.3**	20.0	18.2	**19.1**	15.2	12.3	**13.7**

Source: For School Education: U-DISE-2013-14 (Provisional), For Higher Education: AISHE—2014-15 Report, Educational Statistics at a Glance, MHRD, GoI, 2016.

Gross Enrolment Ratio (GER) is the statistical measure used in the education sector. UNESCO describes GER as the total enrolment within a country, "*in a specific level of education, regardless of age, expressed as a percentage of the population in the official age group corresponding to this level of education*".[2] GER for the school education (I to XII) have been shown in Table 1 for the year 2013–14. The total GER for school education is 84.6, while for SC and ST it is 92.2 and 86.8, respectively. GER for the SC and ST are higher than the overall category. This means that the enrolment of SC and ST are higher in school education as compared to the overall population in that age group. When it comes to higher education, the GER for SC and ST are less. This means all the students of SC and ST categories who pass school education do not go for higher education as compared to the overall population in that age group.

Estimated Gross Enrolment Ratio (GER) in Higher education in India is 24.3 per cent, which is calculated for 18–23 years of age group. For Scheduled Castes, it is 19.1 per cent and for Scheduled Tribes, it is 13.7 per cent at All India level as shown in Table 1. GER for the male population at all India level is 25.3 per cent, whereas for SC males it is 20.1 per cent and 15.2 per cent for ST males. Similarly, GER for female population at all India level is 23.2 per cent, whereas for SC females it is 18.2 per cent and for ST females, it is 12.3 per cent.

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[1] All India Survey on Higher Education (2015–16), Department of Higher Education, Ministry of Human Resource Development, Government of India.
[2] Human Development Report 2016.

The AISHE (2015–16) states that maximum number of students are enrolled in B.A. programme followed by B.Sc. and B.Com. programme. It has also stated that at undergraduate level the highest number (40 per cent) of the students is enrolled in Arts/Humanities/Social Science courses followed by Science (16 per cent), Engineering and Technology (15.6 per cent) and Commerce (14.1 per cent). It has also found that at all India level, Scheduled Caste students constitute 13.9 per cent and Scheduled Tribes students 4.9 per cent and total enrolments of 33.75 per cent students belong to Other Backward Classes. There were 4.7 per cent students belonging to Muslim Minority and 1.97 per cent from other Minority communities.

The Twelfth Five Year Plan (2012–17) has emphasised four main priorities for education policy namely; access, equity, quality, and governance. The Twelfth Plan continues to prioritise these four areas but places the greatest emphasis on improving learning outcomes at all levels. It has focused on utilising historic opportunity of expansion for deepening excellence and achieving equal access to quality higher education[3]. As the planning commission has been abolished and new institution NITI Aayog has been constituted, NITI Aayog's Three Year Action Agenda (2017–20) has emphasised on the quality of the school and higher education particularly focussing on skill development and employability. Concern has been raised about the challenges faced by the education system in India like quality, expansion, inclusion, making education modern with the use of technology without compromising India's tradition and heritage. National Policy on Skill Development and Entrepreneurship 2015 has the vision, "to create an ecosystem of empowerment by skilling on a large scale at a speed with high standards and to promote a culture of innovation based entrepreneurship which can generate wealth and employment so as to ensure sustainable livelihoods for all citizens in the country".[4] These policies have objectives to achieve expansion, equity, employability in education.

Uttar Pradesh: Socioeconomic and Educational Status

The state was created on 1 April 1937 as the United Provinces with the passing of States Reorganisation Act and renamed Uttar Pradesh

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[3] 12th Five Year Plan 2012–17, Inclusive and Qualitative Expansion of Higher Education, UGC, New Delhi.

[4] National Policy for Skill Development and Entrepreneurship 2015, Press Information Bureau, Government of India. Available at http://pib.nic.in/newsite/PrintRelease.aspx?relid=122927 accessed on 12 September 2017.

in 1950. As per Census 2011, the total population of Uttar Pradesh was 19.98 crore (around 190 Million) which is 16.50 per cent of the total population with a growth rate of 20.23 per cent. Uttar Pradesh has an average literacy rate of 67.68 per cent for which male have 77.28 per cent, while female have 57.18 per cent and national average 74.4 per cent (Census 2011). In rural areas of Uttar Pradesh, the literacy rate of males and females stood at 76.33 per cent and 48.48 per cent, respectively. The average literacy rate for rural areas was 65.46 per cent (Census, 2011). Of the total population of Uttar Pradesh, around 77.73 per cent live in rural areas. Uttar Pradesh Gross State Domestic Product (GSDP) at current prices for 2011–12 is estimated at ₹ 6.76 lakh crore, contributing to 8.2 per cent of India's Gross Domestic Products (GDP).

Table 2
Type-wise number of universities in Uttar Pradesh (2014–15)

Universities/Institutions	Uttar Pradesh	India
Central Universities	4	43
Central Open Universities	-	1
Institutions of National Importance	5	75
State Public Universities	23	316
State Open University	1	13
State Private University	20	181
Institution Established under State Legislature Act	1	5
Government Deemed University	2	32
Private Deemed University	4	79
Other	-	3
Grand Total	**58**	**760**

Source: All India Survey on Higher Education (2014–15), Ministry of Human Resource Development, Department of Higher Education, New Delhi.

Table 2 shows the types and number of universities in Uttar Pradesh and at all India level. There were 43 central universities in India, out of which four were in Uttar Pradesh. There were 316 State Public universities, out of which 23 were in Uttar Pradesh. The State Private universities were 181 at all India level, whereas 20 were in Uttar Pradesh. Hence, total Universities at all India level were 760 out of which 58 were in Uttar Pradesh in the year 2014–15. These data show the expansion of higher education in Uttar Pradesh and at all India level.

Uttar Pradesh Government's Education sector Goals for Twelfth Five Year Plan Period were to achieve 85 per cent literacy rate by 2017. It had a target of universal primary enrolment and a reduction in gender gap from 20 per cent to 10 per cent and in drop out ratio in elementary education to 5 per cent by 2017. It wanted to improve teacher-pupil ratio from the present level of 1:40 to RTE norms of 1:30. Uttar Pradesh comes at number one with the highest number of students' enrolment in higher education followed by Maharashtra and Tamil Nadu.

Research Method and Data Collection

This study is based on a primary survey conducted in a village panchayat of Uttar Pradesh in the year 2017. This paper used both qualitative as well as quantitative methods to analyse the data to understand various factors which determine higher education at the village level. Total 115 students in the age group of 18 to 29 years have been surveyed for this study by the researchers to get the primary information about the education and youth aspiration in the village. These 115 youths include all the caste, such as the Scheduled Caste, the Other Backward Castes and the General category in the village.

It was a holistic study of the village. Therefore, all the students who were enrolled and were studying in higher education have been included in the study. All youth in the age group of 18 to 29 years were covered. Some of them have left their study. The girls who were in the age group of 18 to 29 years and married were not included in the study; however, married women in the age group of 18 to 29 and pursing higher education were covered in this study. Thus, it represented a holistic picture of the village as well as the students studying in higher education.

A questionnaire was administered to collect the general information about the households and students enrolled in higher education. For obtaining primary data, eleven items were taken into consideration— i) students demographic profile, ii) cost of education, iii) personal motivation and awareness factors, iv) parents education, occupation, and family income, v) gender effects, vi) distance of college/Universities, vii) quality of school education, viii) quality of higher education, ix) social factors, x) skill development and ICT, xi) employment opportunity and future prospects. The questionnaire has both open ended as well as closed ended questions. The responses were further processed to qualify

as research components and discussed in the study. The general information was collected from households, while group discussion was an additional tool to get more information about the attitude of the students and their interest to get a higher education. The group discussion was based on participant's observation.

Kajipur Village: Demographic Profiles and Socio-economic Status

It is worth mentioning that Kajipur along with Belaha Singha Maun constitutes a village panchayat and is commonly known as Kajipur Belaha Singha Maun. The first major portion of the panchayat is Belha which constitutes around 2,000 population, while the second portion of the village is Kajipur which constitutes around 500 populations. However, for this study, only Kajipur has been taken as a case study because of the time constraint faced by the researchers. Moreover, Dalit population is higher in Kajipur as compared to Belha, so it was more befitting for the research. The total population of Kajipur Belaha village panchayat is therefore around 2,500. The caste composition in Belha varies. In General Category, it includes *Pandits, Thakur, Pathak, and Gupta,* while in Other Backward Caste (OBC) it includes *Kunmi/Patel, Chaurasia, Muslim, Kahar and Bhujwa/Gaud.* The Schedule Caste includes various sub-castes. There is no Schedule Tribe community in Kajipur Belaha.

Kajipur also has variation in caste composition. The Schedule Caste people are dominant in number and constitute around 50 per cent of the total population.

Total 3
Household, total population, and youth population
(18–29 years age group)

Caste	Total Households	Total Population	Youth Population (18 to 29 Years)		
			Male	Female	Total
Scheduled Caste	45	250	38	19	57
OBC	25	150	41	10	51
General	10	100	5	2	7
Total	**80**	**500**	**84**	**31**	**115**

Source: Compiled by Authors

The above Table shows total households, and total population of the village, Kajipur. It has been found that village Kajipur constitutes around 500 population and around 80 households. It has been found that Scheduled Caste constitutes 45 households with about 250 persons. The OBC constitutes 25 households with the total population of around 150 and the higher castes have 10 households with the total population around 100.

During data collection, it was found that some of the students have started their higher education after two to three years gap of higher secondary education (10 + 2). This is the reason that all the students who have been enrolled or have completed their higher education and fall in the age group of 18 to 29 years have been covered in this study, as it makes the study holistic. Hence, 115 youth have been found in the age group of 18 to 29 years out of total population of 500 in the village. It has been found that majority (more than 90 per cent) of them were first generation learners.

The researchers analysed the enrolment of Schedule Caste students in higher education according to the information collected from the village. Schedule Caste people are residing in three colonies (section) of Kajipur. The first colony constitutes around 20 households, the second colony has 15 households and the third colony has around 10 households of Schedule Castes.

Table 4
Father's Education

Educational Level	Frequency	Percentage
Illiterate	60	52.2
Literate	47	40.8
10th Pass	8	7.0
Total	**115**	**100.0**

This study also sought to collect parents' education (Table 4). It has been found that 52.2 per cent of students' fathers were illiterate and 40.8 per cent were literate. It was found that 7 of students' fathers were 10th pass. The majority of the students' mothers were illiterate (around 90 per cent). This is the case because most of the students who have been surveyed in this research were first generation learners.

Table 5
Father's occupation and family income

Nature of Employment	Frequency	Percentage
Agriculture	99	86.1
Government Job	4	3.4
Private Job	12	10.4
Total	**115**	**100.0**

Source: Compiled by Authors

Table 5 shows the occupation of the students' fathers. It has been found that majority of them, i.e., 86.1 per cent were engaged in agricultural activity. Agriculture is the main source of livelihood and source of income. It has been also found that those who are engaged in agriculture, most of them are also casual wage labourer. Casual wage labouring is an additional source of income. Around 10.4 per cent of the students' fathers were engaged in a private job. Private job means those people who have migrated to other cities and working in a formal or informal sector like a truck driver, working in factory or self-employed, etc. A male who is unskilled generally does agricultural work and casual wage labouring. There were 3.4 per cent who were government employee. There are no industrial townships in the nearby villages. It is worth mentioning that mothers of all the students were homemakers. Agriculture and animal husbandry are the only occupations in the village for females.[5] Animal husbandry is a major work where almost all the women are engaged. Most of the animal husbandry is done for milk production for personal consumption. Some of them sell milk to generate additional income.

Table 6[6]
School education of different social category in Kajipur village
between the age group of 18 to 29 years

Educational Status	Scheduled Castes			Other Backward Castes (OBC)			General			Grand Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
8th Pass	12	8	20	16	6	22	1	0	1	45
10th Pass	3	4	7	4	1	5	2	1	3	13
12th Pass	5	3	8	4	1	5	0	1	1	14

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[5] These women are into agricultural work too, they engage in agricultural activity along with the animal husbandry.

[6] Table 6 shows the status of school education in village Kajipur in the age group of 18 to 29 years. Seventy-five youth's had their education at the school level. Some of the girls are studying, whereas most of the boys have left their study.

Polytechnic/ITI	1	0	1	2	0	2	0	0	0	3
Total	**21**	**15**	**36**	**26**	**8**	**34**	**3**	**2**	**5**	**75**

Source: Compiled by Authors

Out of 115 youths surveyed, majority of them left their studies at a certain stage of their education. There were 75 students out of 115 youth population who have their maximum education at the school level. It was around 45 out of 115 who have their schooling maximum till Class VIII; whereas 13 had up to Class X and 14 at Class XII and only three students were enrolled in polytechnic/ITI courses of all the castes in the village. Table 6 shows that majority of the students' attained education up to the Class VIII and left their studies to work in order to support their families. This phenomenon is evident among all the castes in the village. Furthermore, majority of the Class VIII pass out were male (in all the castes). The number of females is very less. Hence, the pattern of school education is almost similar in all the castes in the village. There is no significant difference in attaining the school education between the Dalits and non-Dalits. Dropout rate is also same for all the castes if we compare with the proportion of the population with each caste in the village.

The Girls generally attained their education maximum up to Class VIII, and some upto Class X and Class XII. Out of 15 girls in SC community, eight had education up to Class VIII standard, four up to Class X and three upto Class XII. In OBC community, six girls had education up to Class VIII, one up to Class X and another one up to Class XII. In General, there were two girls in which one was 10th pass and another one was 12th pass. The number of girls is very less as compared to male in all castes because, when girls cross the age of 18 years, they are married off by their parents. These data show that majority (around 65 per cent) of the youth have attained their education up to school level.

Representation of Dalits in Higher Education in Kajipur village: Findings and Discussions

<div align="center">

Table 7
Participation of Dalits and other castes in higher education

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Educational Status	Scheduled Castes			Other Backward Castes (OBC)			General			Grand Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
B.A.	8	4	12	9	3	12	2	0	2	25

B.Sc.	5	0	5	2	0	2	0	0	0	7
B.Com	0	0	0	3	0	3	0	0	0	3
M.A.	1	0	1	0	0	0	0	0	0	1
M.Com	2	0	2	0	0	0	0	0	0	2
B.Tech	1	0	1	0	0	0	0	0	0	1
Grand Total	**17**	**4**	**21**	**14**	**3**	**17**	**2**	**0**	**2**	**40**

Source: Compiled by Authors

Table 7 shows the educational status of students and their enrolment in higher education. As the Table shows, there are 40 students pursuing higher education out of 115 youth. The UGC age group of higher education is 18 to 23 years. But in this study the researchers have taken upper age limit for 29 years. The reason for taking 29 years as the upper age limit is, most of the students who are enrolled in higher education are late starters. It is found that most of these students have left their study after Class XII and later on continued with their education. Therefore, students who are falling under 29 years of age group have been covered in this study.

There were 40 students enrolled in higher education of all castes in Kajipur village. The course of education varies from B.A., B.Sc., B.Com, MA, M.Com, and B.Tech. It has been found that majority of the students enrolled in higher education belong to Scheduled Caste, followed by the OBC and General categories. If we take overall enrolment course wise, then 25 students have been enrolled in the B.A. programme, seven students in B.Sc., three students in B.Com, one in M.A., two in M.Com and one in B.Tech. of all the castes. There were two students enrolled in B.Tech. programme, but only one student is pursuing it while the other has failed and discontinued. Furthermore, in that village, there was no student who was enrolled or who plans to pursue a medical education.

There were three students who were enrolled in professional courses in SC community, out of which two students have completed B.Ed., and the other one has done B.Com, M.Com, B.Ed, LLB, PGDCA and skill development certificate course under PMKVY. Apparently, he is the source of inspiration for many other students in the village. He is the first student from the village who has completed LLB. As such, there is one more student of SC community who has enrolled in LLB course this year. The B.Tech student who failed in the first year itself cited many reasons for his

failure to pursue B.Tech. He stated that the main reason for his failure was the communication barrier as he was not well versed in the english language because he has done his schooling from a Hindi medium school. He further specified that it was easy for him to get admission in B.Tech because of the availability of a scholarship for SC student. However, it was very difficult to pursue it successfully. The other reasons for his failure were; lack of quality education at the school, language problem, peer pressure, inferiority complex and cost of education other than tuition fees, etc. The other B.Tech student who is successfully pursuing B.Tech. has been residing in a city, which provides him a better environment for the education. For the record, there were no OBC and general students enrolled in any professional courses.

The factors which determine higher education are the cost of education, personal motivation and awareness factors, gender effects, distance of universities and college, quality of higher education, social factors, skill development and ICT, employment opportunity and future prospects.

It was interesting to find that those who have managed to pass secondary and higher secondary education were able to study further. This finding from our study supports Sundaram (2006) who also stated that once cross secondary education, the decision for higher education is not significantly affected by their economic criteria. But at the same time, this study finds that economic criteria have a significant role in deciding which course to choose for higher education. As the Table 7 shows, 25 out of 40 students (62 per cent) who were enrolled or completed their graduation were enrolled in B.A. program. It is 57.14 for SC and 70 for OBC castes in villages enrolled in BA programme. These data show that low economic status compelled them to enrol in arts and humanities courses. The professional courses require high cost fees and other expenses which is difficult for the low income group to manage. Therefore, arts and humanities courses dominante higher education among low income group (same for SC and OBC)[7].

The Cost of Education

The cost of education for higher education varies with the discipline for instance, technical, medical and engineering cost more than

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[7]   General category's overall population and students enrolment in higher education is very less that's why it is not been compared with SC and OBC.

arts and humanities. After analysing the data, researchers found that the trend of higher education in the village is more inclined towards arts and humanities courses rather than technical disciplin.[8] Thus, the admission in B.A. programme is free for all the castes, as ₹4,600 per year as scholarship covers the fee. The tuition fee for M.A. is ₹5,200 per year and scholarship is ₹8,600 per year, hence, a student can cover his/her fees through the scholarship amount. Likewise, the B.Ed. fee for two years is ₹81,000 and the scholarship is ₹90,000. Hence, it can be said that the cost of education is not an issue for the students pursuing higher education especially art and humanities.

The LLB fee is ₹3,112 per year with the scholarship of ₹9,500 per year. The fees for B.Sc. courses is ₹3,200 per year whereas the amount of scholarship is ₹4,600 per year. Two students have enrolled in the LLB course. Whereas, the B.Tech fee is ₹82,000/- per year and the government provides a scholarship of ₹86,000 per year[9]. Scholarship is also one of the motivational factors for the students to get enrolled in higher education. It has also been found that there are a few girls who were studying after marriage for scholarships.

It is important to note that after a casual interaction, some of the students confided that they wanted to pursue a technical course like B.Tech. But to get admission in a reputed engineering college one requires good scores and ranking in the entrance examination. There is a common pattern of coaching classes in preparing for competitive examination. One student of SC community revealed that he is not in a position to enrol in good coaching classes because of financial constraints. His father showed helplessness by lamenting, *"main apne bete ko engineering padhana chahta hoo lekin mere paas coaching karane ke liya aur shahar me kamra le kar padhane ke liye paise nahi hai"* (english translation— I want my son to study engineering course but I have no money to pay for his coaching fees and room rent in the city). Due to such financial problems, students were compelled to enrol in B.A. programme.

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[8] It is found that most of the affiliated colleges nearby town offer free admission and when the students avail scholarship funded by the government, their tuition fees (around ₹ 3000) is deducted from it.

[9] All these information (like cost of education) are stated by the students during interaction with them by researchers. It has not been verified from the college/ University administration.

Personal Motivation and Awareness Factors

Personal motivation is one of the important factors for higher education. If an individual is serious about his/her future and education even though economically poor, he/she can achieve some respectable position in higher education through motivation and hardwork. There was one such case found in this primary survey, out of the 40 students enrolled in higher education, one of them was highly motivated, the student belongs to Scheduled Caste. This student has done B.Com, M.Com, B.Ed, LLB, PGDCA, and a certificate course in skill development in PMKVY. His father is a farmer and their source of income is through agriculture. He was able to complete all these courses because of his personal motivation. He stated that, *"Kuch bada karna chahta hoo apne jivan mein"* (I want to do something big in my life). He explains the importance of education. He further stated that education is the only means to change life in a positive way. It is the only tool for emancipation and can help others to achieve these goals in their lives.

However, the researchers found mix responses of motivation. There was one family in SC community. Although they were economically well off, the children were not motivated enough to take higher education. Majority of the students who were enrolled in higher education were also working to support their families. There were only a few (around 5 in SC and another 4 students of OBC and 1 in General) who were very serious about acquiring higher education. Thus, 10 students out of total 40 enrolled in higher education were doing better in higher education. Majority of the remaining 30 students have migrated to other states for earning money. They come back only to appear in their exams. This is the most prevalent pattern of higher education found in the village. It is same for all castes. Therefore, majority of the students were enrolled in higher education either to get a scholarship or just for the sake of a degree. The financial problem too compels them to do so. They need to earn money to support their families and to manage their own expenses.

To determine, the discipline and full information about the colleges and universities generally come from friends and relatives who are educated and well connected with the mainstream source of knowledge. In this era of information and communication technology, students are fully aware of the courses and new programme and schemes launched by the cental and state

governments. But it has been found that only a few are able to take benefits out of this information.

Pull and Push Factors

This is new factor emerging in the Indian society. It has brought a significant change in society. One well educated person and family became the role model for others. It is very much applicable in the Indian society where one caste always dominates over others. Now people understand the value of education in changing the life of an individual irrespective of the caste status. The scheduled caste community in this village is doing better than nearby villages as the researchers have observed. The reasons for better education are the pull and push factors. In this village, one SC family has done exceptionally well in higher education and in getting government jobs. This family is the source of inspiration for many. The younger generations have realised the value of education. Hence, many students are taking higher education with the individual capacity to change their lives in better ways. It is seen as a source of motivation for some but not for all.

There is no industrial township in nearby places. There are no direct benefits of higher education for students. The majority of the students who are in the age group of higher education are enrolled in higher education but they do not seem to be highly motivated. One of the reasons for low motivations is lack of job opportunity.

Gender Effect

From all the castes, there are no girls studying in higher education in the village. Table 7 shows that only four girls in SC community, three in OBC were enrolled in higher education (these were the married wives of male candidates in the village[10]). Majority of the girls who cross 18 years of age are married off. The married girls are not included in this research. It is also important to note that girls are not studying in higher education. This is the case for all the castes. Hence, it can be said that girls' rate of participation in higher education is discriminatory in nature for all the castes.

The traditional norm of early marriage still plays an important role in Indian villages. Gender bias is still a matter of concern in villages. These traditional norms are challenged by the new

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[10] Since no girls after the age of 18 years found to study in higher education, hence, male married whose wife are studying higher education and falls in the age group of 18 to 29 years have been included in the survey.

generation but the economic deprivation pushed them back to the old fashion. Staying in the village, the researchers have observed that majority of them attains primary education, but by the age of 18 (or on completion of 10th and 12th standard) family itself stop their girls from attaining higher education and contemplates on marrying them. However, over the years, due to scholarships and other facilities being offered by the State government, there has been an increase in the enrolment of the girls in higher education. Girls are taking admission in higher education even after their marriage. This is a significant change found in last five years. If there is no availability of institution for higher education in the nearby village(s) and if these institutes are located in cities (which are far away from the village), it is the mindset of parents to in stop them from going to cities as they feel insecure for their girl child.

Distance of University and College

In the rural area, generally, universities and colleges are located in nearby cities and towns. If the family is economically well off then they always wish to send their children to cities for education because it provides the suitable academic environment. Hence, for higher education, distance is not an issue but the economic factor is the main concern.

This village is located in between Allahabad and Varanasi. Two top universities, i.e., the University of Allahabad and Banaras Hindu University (BHU) are the nearest universities from the village. It has been found that there is lack of motivation for the boys and girls to get admission in these universities. The economic factor is one of the most important factors that determine higher education in the village.

Quality of Higher Education

It has been found that higher education has been available for the students of the village in nearby colleges. As the Twelfth Five Year Plan has an objective to provide education for all, it seems this objective is fulfilled. But the quality of higher education is very low. It has been found that university level education is able to provide quality education but the affiliated colleges are not able to maintain the quality which is expected in higher education, for instance, regular lecture, assignment, classroom evaluation and test, presentation, discussion, and debates.

After the interaction with the students, it has also been found that the affiliated colleges are more eager to generate revenue rather than imparting quality education. But the colleges cannot be held solely responsible for lack of quality because even the students are not interested to attain regular classes. Although affiliated college is affiliated to the university it fails to maintain the quality at the rural level. There is a clear cut division between university education and affiliated college education in higher education.

Social Factor

A social factor which is a dominant nature of caste system is no more a barrier to higher education. In this village, the researchers found that there is no social dominance of one particular caste. However, in some houses, the old norms still exist and it has been observed that education is still not given importance. As soon as the new generation hits the puberty, they start working to support their families or to fulfil their own consumerist desires. Somewhere the motivation factor is still missing in some households.

Skill Development

Skill development is another challenge. It is found that only five students have been enrolled for the skill development courses like polytechnic and ITI from all the castes in the village. There were five students who have done PGDCA out of which three belongs to SC and two belongs to OBC. These courses are meant for basic computer learning. There are institutes like polytechnic and ITI in a nearby town but the enrolment in these courses was found to be very less. Students are also not motivated for skill development courses. When the researchers asked the reason for less motivation, some students replied that there are no industrial townships where they can get immediate employment. Hence, skill development courses are not very much popular among the students.

With the advancement of information technology, the accessibility of Internet in the society help to move towards a knowledge society. Hence, acquiring an education is considered as a sign of social prestige which leads to more and more families striving towards it.

Employment Opportunity

After interaction with students, majority of the students feel that higher education has a significant role in their lives. Higher education will bring better opportunities. There is a direct relation between higher education and government jobs as stated by students during the interaction. It is also noted that lack of job opportunities in the nearby town makes skill development courses not very popular. In the village, agriculture and animal husbandry and casual wage labours are the only employment. Hence, the majority of the youth migrate to other states and cities in search of employment options. There is no industrial township. Since, it is situated between Allahabad and Varanasi, Bhadohi district is famous for carpet manufacturing, but that too is declining. Thus, youth are compelled to migrate to other states and cities in search of employment. Majority of them wish to work in private sector in other states and cities.

Conclusion

To conclude, there were 115 youths in the age group of 18–29 years. Majority of them have passed Class VIII and has left their study which includes females too. Male students migrate to other states and cities in search of employment and females get married. AISHE — 2014–15 stated that GER of SC students for higher education was 19.1 in which male constitutes 20, whereas females constitute 18.2. If we compare higher education in the village then it is found that majority of the SC community students are male (17 out of 21 enrolled in higher education). Thus, the difference between male and female with regard to higher education can be seen in Kajipur village, this is the case for all the castes in the village.

Two types of migration were found in the village. First, some students migrate to cities for acquiring higher education and second, the students who intended to earn money for supporting their families. If students want to achieve good education and family can afford the cost of education, then they migrate to cities where good universities are located. Researchers found that some students (10 out of 40 students) show their interest to reside and study in cities but their families' low economic status restrict them to stay in village. Thus, various factors of higher education, the economic factors (cost of education and other expenses) are most important for acquiring higher education. The researchers

found that scholarship is one of the motivational factors for students to pursue higher education especially courses like arts and humanities. It is found that majority of the students (25 out of 40 students) worked in other states and cities, and returned during the time of examination. This is the most prevalent trend of acquiring higher education in villages.

There are post-graduate degree colleges in nearby town but these colleges lack basic infrastructure like library and good teaching environment, which leads to poor quality of education. Every year, thousands of students graduated from such colleges but remain unemployed because they lack employability skills. There is unavailability of job in government sector. Some of the graduate students shared their job experience in private sector stating that they lack communication skills, basic computer knowledge, and other soft skills (employability) which hinder them to get better employment in private sector in cities. Lack of interest to study skill development courses among students is another factor for rendering them unemployed.

The important factors for pursuing higher education are personal motivation, awareness and proper guidance. These factors are complementary in nature. One factor depends and supplements other factors in making the decision for acquiring higher education. Job opportunities after higher education are not adequately available (as stated by students) which is the reason most of the students are not enthusiastic to take higher education or left out after a certain stage of education. There is no difference between Dalits and Non-Dalits in terms of higher education in the village. Scheduled caste students are doing much better in higher education than these in nearby villages.

Above all, the new trend which is emerging is more affected by the information and communication technology rather than social deprivation. The economic deprivation is one of the basic factors which hinder the students' aspirations towards higher education but the new changing society with emerging technology has shown different impact on the new generation. This generation is more attracted towards their materialistic desires and new enthusiasm of self-dependence has pushed them towards workplace to sustain their livelihood rather than acquiring higher education.

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In-Service Teacher Education Programmes
Issues and Challenges

Himanshi Piplani* and Shruti Chopra**

Abstract

Teacher professional development is an integral part of educational reforms as highlighted in various educational policies and commission reports including National Policy of Education (1986) and Kothari commission (1964–66). This paper presents a study of in-service teacher education programmes and the perceptions of 30 teachers from government schools and private schools. The data, collected through responses elucidated in interviews, were qualitatively analysed using a framework designed by the researchers. The findings highlight the factors that contribute or hinder the implementation of the in-service teacher education programmes and the need for moving beyond the traditional model of in-service teacher training. Further, the study draws upon suggestions for re-designing in-service programmes.

Keywords: *In-service teacher education programmes, government school teachers, private school teachers*

Introduction

Eduard Lindeman, an American educator and a philosopher, viewed education as life-long learning. It does not culminate at a particular age. According to Kothari Commission (1964–66), a teacher, unlike an ordinary worker, acts as a facilitator, collaborator, and, significantly, a 'co-learner,' rather than information regurgitator. Therefore, a teacher should continue making efforts in this direction for the whole life. Also, keeping pace with the fast changing times and

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exponential growth in knowledge, it is necessary for the teachers to continuously upgrade themselves. This continual education is also important in order to enable teachers to handle the new material with ease and effectiveness. Rabindra Nath Tagore has rightly stated, "A lamp can never light another lamp unless it continues to burn its flame." Thus, teacher education programmes need to prepare teachers not only to teach but how to keep pace with the changing times and changing curriculum in order to enrich their classrooms. In-service programmes were developed with the same objective of keeping teachers abreast with new innovations and concepts of education.

Rationale of the Study

Though the professional preparation of teachers has been recognised as crucially important, the ground reality remains a matter of great concern. The Kothari Commission (1964–1966) emphasised the need for teacher education to be brought into mainstream academic life, but teacher education institutes continue to exist as insular organisations. The commission strongly recommended that — i) large scale programmes should be organised by universities and teacher organisations at all levels to enable every teacher to receive 2–3 months of in-service education in every five years of service, ii) continuing in-service education should be based on research inputs, iii) training institutions should work on 12 months basis and organise in-service programmes, such as refresher courses, seminars, workshops and summer institutes. The Report of the National Commission on Teachers (1985) highlighted the absence of clear-cut policies and priorities for in-service education and lack of systematic identification of needs. The Commission mooted the idea of teachers' centres that could function as a meeting place for teachers located in a school.

Further, the landmark National Policy on Education (1986) expressed its serious concerns over the diminishing status of teachers which adversely affected the quality of education and many of the ills of the education system were ascribed to it. It linked in-service teacher education as a continuum with pre-service education. A Centrally Sponsored Scheme of restructuring and strengthening of teacher education was evolved and implemented. The *Acharya Ramamurti* Review Committee (1990) explicitly stated that, "In-service and refresher courses should be related to the specific needs of the teachers. In-service education should take

due care of the future needs of teacher growth; evaluation and follow up should be part of the scheme." National Curriculum Framework (2005) further suggested that in-service education programmes should be organised according to the actual needs of the teachers and must be situated within the context of the classroom experiences of teachers. National Curriculum Framework for Teacher Education (2009) suggested that a teacher needs to be prepared in relation to the needs and demands arising in the school context, to engage with questions of school knowledge, the learner and the learning process.

The developments in teacher education suggest that several attempts have been made in the recent past to enhance the responsiveness of the programmes in relation to expectations regarding them. The attempts made have not led to a significant impact on the field. According to Derin Atay (2008), current in-service education and training programmes are often found to be unsatisfactory due to the fact that they don't provide the teachers with opportunities to be actively involved in their development and to reflect on their teaching experiences. Therefore, it is important to study and document the perceptions of teachers about in-service education programmes and find out the gaps (if any) that exist in the in-service programmes and enhance the quality as per the needs and requirements of teachers. Hence, this study, examined the perceptions of teachers in order to have an overall understanding about in-service teacher education.

Although there is a growing literature on the positive outcomes associated with teachers engaged in in-service education, not much information is provided about the issues and challenges associated with these programmes. Thus, the present study aims to discuss the perceptions of teachers about in-service teacher education programmes. The following research questions were addressed in this study—

1. What are the perceptions of teachers about in-service teacher education programmes?
2. Are there any differences in the in-service education programmes run in a government and a private setup?

Methodology

The purpose of this study was to investigate the teachers' perceptions on the nature of in-service teacher education programmes.

A qualitative approach was considered suitable for this study because it allowed the researchers to accord the participants an opportunity to define their own perceptions and concerns, and gather data through face-to-face interviews. The data pool consisted of 30 teachers from various schools of National Capital Territory of Delhi (15 government school teachers and 15 private school teachers).

The interview schedule comprised questions related to purpose, duration, design and content, pedagogical approaches and follow up. The data collected was analysed under the above mentioned categories.

Results and Analysis

Role of in-service education programmes

About 62.5 per cent of the government school teachers mentioned that in-service programmes are important. A teacher from government school mentioned, "These programmes are very important as we get exposed to new developments and innovations." On the other hand, 37.5 per cent of the government school teachers interviewed felt that the in-service education programmes conducted are of no importance as they are the same repetition of what they have already done in the previously attended teaching programmes.

Government School Teacher

YES   NO
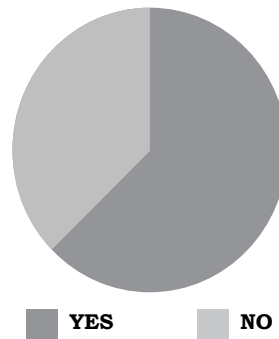
About 73.33 per cent of the private school teachers interviewed mentioned that they feel in-service teacher education programmes are important as it helps them to be familiar with the changing times and changing curriculum in the field of education. A teacher from a private school mentioned that, "The teacher education programmes helped me a lot. It helped me to teach abstract concepts in a more practical manner. One of the workshops that I attended was about how to make science learning an interesting process."

YES
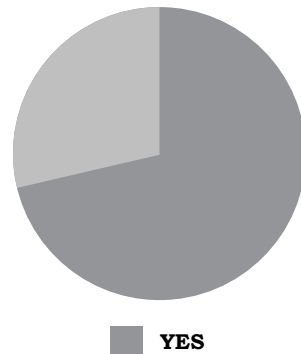
Organising In-Service Teacher Education Programmes

From the data collected, it is seen that State Councils of Educational Research and Training (SCERT) and District Institute of Education and Training (DIET) are the nodal agencies conducting in-service programmes in MCD and NDMC schools. *Kendriya vidyalyas* have in-service teacher education programmes majorly conducted by *kendriya Vidyalaya Sangathan*. The *sangathan* also takes techno-academic support from DIET and SCERT.

On the other hand, various organising agencies have been involved in organising teacher training programmes in private schools, such as IAPT, British Council, etc. These agencies have taken up a variety of issues, such as innovative teaching learning of various mathematical concepts, subject related issues and so on.

The data revealed that in-service programmes conducted in government schools seem to be generic in nature while the sessions held in private schools, organised by multiple organisations, were specialised, focussing on various aspects of teaching ranging from personality development to enhancement of content knowledge to strategies for assessment.

Duration

Traditionally, teachers' professional development consisted of short-term or one-shot in-service programmes conducted by outside 'experts'. These programmes have been highly popular as they provide teachers with a break in routine, a chance to meet new colleagues and discuss their professional problems, and exposure to stimulating new ideas.

As mentioned by three teachers in their interviews, there is a separate training centre in their schools which allows them to choose the workshops and programmes they wish to attend in accordance with their interest. One of the teachers mentioned that, "We have teachers' training centre which keeps organising various programmes throughout the year. We can register for them according to our interest and feasibility". The teacher programmes are held quite frequently in the school premises by various agencies, such as CBSE, and most of them last for a period of 2–3 days.

On the other hand, teachers teaching in government schools mentioned that the teachers are sent to various places purely on the choice of the school principals. A teacher from a government

school mentioned that, "We are forced by our school principals to attend a particular seminar or workshop. We are never asked about our interests." *Kendriya vidyalaya* teachers are bound to attend the 21-days teacher programmes organised by *Kendriya vidyalaya sangathan* during school vacations. At times, they are taken to various out-station places for these programmes. A teacher from *Kendriya vidyalaya* mentioned that, "Few years back, we were taken to Dehradun to visit a school of slow learners in order to know about inclusive education".

Design and Content

The data reveals that various themes have been chosen for designing of these teacher education programmes. The themes under which these education programmes were organised were quite relevant to the contemporary issues of education, such as computer-aided learning, teaching learning material, theatre as a pedagogic tool, learning disabilities, classroom management and CCE implementation. One of the teachers from a private school mentioned that, "The content of the programmes were related to challenges faced by teachers during teaching learning process, how to make methods and approaches more effective, teenager problems, counseling, etc." These programmes are necessary to keep teachers abreast with the day-to-day educational innovations. Moreover, *sarva shiksha abhiyan* also advocates the integration of content cum methodology approach. It further adds that different inputs like material development, demonstrations, activity-based approaches, multimedia, continuous and comprehensive evaluation and joyful approaches needs to be integrated. There is a need to demonstrate before the teachers about how this integration takes place.

Pedagogical Approaches

From the data, it is seen that learning by doing is the predominant

Methodology Adopted

- Learning by doing
- Lecture
- Discussion
- Movies
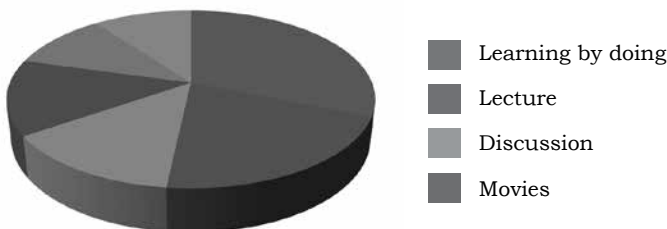
pedagogical strategy used in teacher education programmes. Highlighting the need for hands-on teaching-learning approaches, Derin Atay (2008) states that current in-service education programmes are often found to be unsatisfactory due to the fact that they don't provide the teachers with opportunities to be actively involved in their development and to reflect on their teaching experiences. Though, 60 per cent of the teachers interviewed mentioned that the methodology used was learning by doing, yet they feel that there is no active involvement in the process. One of the teachers from a private school mentioned that, "In a workshop related to teaching of grammar in primary classes, we were told to transact the content in the workshop using various methodologies. Despite of all this, there was not much involvement of teachers as we were not able to ask our queries or share experiences".

The lecture dominates the programmes and teachers lose their interest after a time period. A teacher from a government school mentioned, "In my teaching experience of 30 years, I have attended a number of such programmes. But, I have seen only few resource persons who are able to engage teachers equally. It always ends up being a one-way process". As advocated by NCF (2005), use of learning by doing methodology in teachers' training provides adequate scope for viewing theoretical understanding and its practical applications in a more integrated manner rather than as two separate, fragmented components.

Teaching to Teach: The Role of Resource Person

Around 66.6 per cent of the government school teachers mentioned that they were content with the resource persons invited for conducting sessions. On the other hand, 20 per cent of the teachers said that they were not content. The main reason for this, which

Government School

- Completely Satisfied
- Partially Satisfied
- Not Satisfied
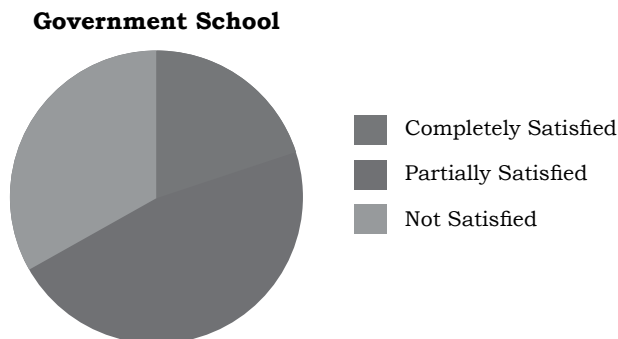
the teachers stated, was that the resource person didn't have the school teaching experience and the resource person was not able to relate the content being transacted with the teachers' classroom experiences. Moreover, they commented on the content knowledge of the resource persons. Furthermore, 13.33 per cent of the teachers commented about the language used during the sessions as they weren't well equipped with English. One of the teachers mentioned that, "The resource person used words that we were unable to comprehend and gradually it led to losing of interest."

Around 80 per cent of the private school teachers said that the resource persons handled the training programmes quite effectively. One of the teachers mentioned that the resource person tried to clarify individual doubts and helped to resolve arguments among group members. On the other hand, 20 per cent of the teachers said that sometimes the resource person handled the subject in question really well, while some of them seemed as if they had just rote memorised a lecture and couldn't relate it with the school related experiences.

Private School

Completely Satisfied
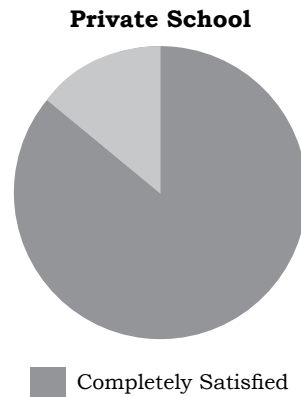
Follow Up

Follow up is the backbone of any programme as it provides insights about the implementation of various teacher education programmes in real classroom contexts. Ramatlapana Kim Agatha (2009) found that teachers' concerns included the lack of impact of current in-service training programmes on the education system, no regular follow-up activities to support the one-off workshops, insufficient skills acquired to sustain the implementation of the strategies solicited by the workshops.

The study revealed that no proper follow up programme was conducted by any of the organising agencies. All the teachers interviewed mentioned that there was no follow up conducted by the agencies after the programme. This is a sad situation as follow up should form an integral part of the teacher education programmes.

Revisiting In-Service Programmes

Around 93.33 per cent of the teachers suggested that training programmes should be related to the ground realities as they were not able to implement the strategies discussed during these programmes in real classroom settings. The major reason why they faced this problem was due to constraints of time, vast syllabus and other limitations. Further, the programmes should be need based. These programmes should be organised keeping in mind the ground realities. Secondly, the teacher education programmes should happen on a regular basis. They should be well planned and more systematic. Thirdly, the resource persons conducting the workshops should identify the needs of the participating teachers before planning the content and methodology. Further, time duration of these programmes should be comfortable as teachers' lose concentration after a certain time period.

Conclusion and Implications

The study revealed that in-service teacher education programmes need to be re-structured to align with the current and immediate need of the participants. In-service teacher education programmes should follow a bottom-up approach and should be in tune with the ground reality. Both-a person with fundamental knowledge about the issue being dealt along with a school practicing teacher should conduct the session such that content as well as practical implications are integrated keeping in mind the ground reality. The programmes should be organised keeping in mind the needs as only then the teachers will be able to relate and feel psychologically motivated to attend these programmes. Teachers' representative can form a part of the planning process. Provision of better infrastructural facilities should be made so as to have maximum learning. Further, duration of these programmes should not be more than four hours a day, as longer sessions lower teachers' concentration level. Moreover, rigorous follow up should be done by the training agencies. Only then will these teacher education programmes be effective as it will be only then that these agencies come face-to-face with actual classroom problems.

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An Analysis of Students' Drawing and Labelling Skills in Science at the Elementary Level

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ABSTRACT

Science, with its emphasis on facts and knowledge, is incomplete without skills like observation, interpretation, and analysis. One of the media through which they are expressed is drawing and labelling. There is especially unique need of drawing and labelling skills in biology because of the variety, complexity and intricacy of the diagram and the role it has on developing the concept. The purpose of this paper is to investigate and analyse the strengths and weaknesses of students in drawing and labelling skills and to determine the improvement in these skills after implementing intervention. Class VII students constituted the target population and were selected using purposive sampling. Both exploratory as well as experimental research designs were used. A pre-test post-test single group design was adopted. The data obtained was analysed using both descriptive and inferential statistics. Results indicated that majority of the respondents lacked all the 10 drawing and labelling skills tested. This casts doubt on the students' understanding of biological concepts and hence their overall performance in the subject. After planned intervention, though there was a gain in skills, significant variation in gain percentage was observed indicating individual uniqueness. This suggests the need for using a variety of approaches to develop drawing skills.

Introduction

There are many skills that are required for learning science. The important among them are skills of observation, problem solving, drawing and labelling, analysis, synthesis and creativity. One of the

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essential skills of science is drawing and labelling. For improving the interest towards science education among the children, mastery in drawing and labelling skills are important because an excellent way to describe a scientific phenomenon is through drawing. It helps to increase critical thinking, problem solving and creativity among students. Physics, chemistry and biology, all these school science subjects call for drawing skills. There is especially unique need of drawing and labelling skills in biology because of the variety, complexity and intricacy of the diagram. But the role of drawing skills in the teaching and learning of biology has often been underestimated. The goal of the observer is normally to move beyond simple mental images of what observer believes a particular plant or animal looks like, and instead concentrate on the unique identity of that specimen (Dempsey and Betz, 2001). Such approaches to learning in biology will help students relate structure to function to a great extent.

Importance of Drawing and Labelling Skills in Biology

Biologists recognise the usefulness of drawing and a good deal of time is used on it in the lab, in anatomical and microscopic studies, and in the field (BSCS, 1992). Research results have shown that science teachers continue to teach science using the lecture method despite the recommended guided discovery/inquiry methods and the acceptance of these methods by teachers at organised training and orientation courses (Wekesa, 2013a, Landin, 2015). The inability of science teachers to apply these recommended approaches in their teaching is hinged on some teething problems which include lack of laboratories equipped with facilities in schools, large class sizes of science students with very few teachers and competency problems arising from the training of science teachers. This tends to suggest that poor science learning by students is traced to the teachers' fault-in the area of competencies. As a result, many students are intimidated by drawing exercises and resort to copying drawings from lab manuals and textbooks. All the domains of a student, i.e., cognitive, affective, psychomotor are engaged in the learning process when they are involved in scientific drawing. These make students to be creative and learn at a deeper level as compared to surface learning (Rogers, 2008).

Alkaslassy and O'Day (2002) note that observing is a fundamental science process skill. Students observe objects and events using all five senses and learn about the world around. One has to look

at a specimen very carefully to be able to draw it accurately, and labelling of a drawing forces one to think about the component structures and their positions. This means that labelling of drawings in Biology sharpens a student's observation and thinking skills making student able to relate structure to function.

Drawing enhances communication skill especially where students are required to make elaborate descriptions of phenomena which are changing in shape and appearance (Yockey, 2001). A good example could be expressing the process of plasmolysis in plant cells where diagrams can be used to express the physiological changes that are taking place. Drawing is used to transfer information and to solve problems by virtue of its effect on senses. This is so because approximately 80 per cent of our sensory input comes from our visual system. Visual language is very helpful in the learning process, and there is a lot of information that can be transferred in a visual way especially in the sciences. Line drawings, diagrams and photographs can elaborate and make memorable the text that they accompany. The essential concepts are presented in a quickly read format. For example, diagrams can be a powerful tool for summarising the relationships between photosynthesis and respiration. These two related concepts contain numerous difficult-to-learn biochemical cycles and information that students must disentangle, segregate, group and compare. Drawings show student's misconceptions very clearly, teachers can anticipate which concepts are likely to confuse the learners and hence take necessary precautions as they prepare for instruction. Research and classroom experience suggest that students who learn such cycles from diagrams rather than from prose do better. Many studies have also revealed that students seem to perform better in topics that are taught using drawings on final examination. It has a significant effect on performance in Life science (Wekesa, 2013b).

Functions of Drawing and Labelling in Biology

Aggarwal (2001) reported that the making of drawings in Botany and Zoology is an accepted technique. He notes that drawing in biology performs the following functions:

(i) It ensures that the pupil look at and examine the details of the specimen with proper attention. This ensures meaningful learning which will be translated into good performance in biology.

(ii) It provides avenues for learning through visual and kinaesthetic experience in addition to the auditory experience of listening to the teacher. This breaks the monotony during the learning process resulting in increased attention span.

(iii) It provides a record of the work done by the pupil.

(iv) It provides the pupil with material useful for revision. As it will be noted later that drawings can be used to summarise a large content of information. This makes it an excellent tool in preparing for examinations.

(v) It acts as a medium for analysis and synthesis, that is to be a stimulus to think. Analysis and synthesis are among the high domains of Bloom's taxonomy of objectives. This suggests that making of drawings encourages deep learning.

Benefits of Student Generated Diagrams

Janice and Clement (2008), in the research on the beneficial effects of student-generated diagrams versus student-generated summaries on understanding of concepts, have found out that the group which generated diagrams after a brief exposition on a given concept out-performed the one which generated summaries in a test. This may be attributed to the effect of dual-coding of the memory. There is strong evidence that when learners draw diagrams or pictures to represent the facts they have learned makes them stick in their mind better than pages and pages of notes.

Most importantly, it improves the visual perceptual ability in comprehending and understanding the abstract concepts. This is so because approximately 80 per cent of our sensory input comes from our visual system and there is a lot of information that can be transferred in a visual way especially in science (Ostrogona and Mulyandi, 1999). For example, diagrams can be a powerful tool for summarising the relationship between photosynthesis and respiration. These two related concepts contain numerous difficult-to-learn biochemical cycles and information that students must disentangle, segregate, group and compare. Research and classroom experience suggest that students can learn such cycles better from diagrams rather than from prose (Dempsey and Betz, 2001).

From the foregoing, it is evident that making of drawings during biology lessons is aimed at intentionally engaging students meaningfully and in appropriate learning tasks. This participatory learning approach fosters deep learning and high retention rate.

Practical work in biology like in other science subjects is very essential in making concrete the otherwise abstract subject matter.

Rationale of the Study

The age of old chalk and talk method of teaching biology is getting modified and is being supplemented by using digital media, and students are missing out the opportunity to learn through modelling. So, in the digital media the teachers go for less of demonstration of how to draw a scientific diagram. Most of the teachers' use textbooks, charts, models and learners are asked to draw diagrams from them. Though this strategy is very effective, without proper guidance, modelling and monitoring, the crucial point of developing drawing and labelling skills can be missed.

Recent studies (Australian Academy of Science, 2009) show that annotated drawing is a metacognitive strategy and there is an understanding with the efficacy of drawing for meaningful biology teaching and learning. It is shown that when students draw, label and give functions of the labelled parts, they are able to construct meaning to concepts. Some teachers mainly reward high marks to drawings that are very artistic but scientific drawings are not just works of art, but they should meet the criteria of accuracy, clarity, labelling and magnification.

Based on the above discussion, it is observed that mastery in drawing and labelling skills is not just a simple task. The search for ways to bring out effective teaching and learning of biology has provided the impetus for this study. Hence, the need was felt to analyse, identify the strengths and weaknesses and investigate the effect of intervention for improving the drawing and labelling skills in biology.

Materials and Methods

Exploratory as well as experimental methods were adopted. Pre-test and post-test single group design was taken. Around 27 students of Class VII were taken by adopting the purposive sampling method. A pilot test was performed on a student randomly selected from Class VII and a self-developed test was prepared comprising diagrams in biology (chapters were nutrition in plants, nutrition in animals, respiration in organisms and reproduction in plants) based on a Class VII Science textbook of NCERT. Validation of tools has also been done through expert

validation, pilot testing, checking feasibility, scoring pattern and time to be given.

Table 1
Questions and marks distribution on the basis of skills

Sl. No.	Content	Topic	Skills			Total
			Giving title	Drawing	Proper labelling	
1.	Nutrition in plants	Photosynthesis	1	2	2.5	5.5
2.	Nutrition in animals	Human digestive system	1	3	5.5	9.5
3.	Respiration in organisms	Mechanism of breathing	2	3	3	8
4.	Reproduction in plants	Self- pollination and cross-pollination	2	3	2	7
Total			**6**	**11**	**13**	**30**

The drawing test in both pre-experimental phase as well as in post experimental phase was analysed quantitatively by calculating mean, standard deviation and t-test. Qualitative analysis was carried out by percentage analysis to observe the individual improvement with reference to accuracy and reduction in error.

After analysing the student's skills, some practical and activity-based teaching plans for biology of NCERT textbook of Class VII were prepared. During the intervention strategies like engaging learners in practical work for observation, use of audio-visual aids, providing opportunity for clear magnification as it improves visual perceptual ability in understanding abstract concepts (Ostrogona and Mulyandi, 1999) were followed. Misconceptions, confusions and incoherent knowledge on topics were cleared. The specific strategies like use of worksheets, textbooks and teacher demonstration, class discussions, assisting learners at individual level, deliberating instruction on drawing of biological diagrams, giving feedback were applied.

The duration of intervention was one week. It was both classroom as well as practical-based. Some classroom based interventions were given in a group like giving guidance for indicating title per diagram and suggesting proper use of pencil for diagram, showing video of breathing mechanism and pollination to

clarify misconceptions and confusion. Whereas some classroom-based interventions were assisted at the individual level like giving 3D puzzles of digestive system and to rearrange it accordingly, providing worksheets for practicing proper labelling. Practical-based interventions were engaging learners for observation like concentrating on the unique identity of a specimen (Dempsey et al. 2001) and also keeping accurate record of the organism's shape, different parts in proportion to each other while showing and describing model of human digestive system and measuring chest while inhalation and exhalation. A post-test was performed after the intervention where significant improvements were noticed.

Results and Discussion

The pre-test and post-test scores related to the performance of the students were compared to see the significant mean difference in over all scores and the three different categories assessed under drawing and labelling. The details are given in Table 2.

Table 2
Mean, SD and 't' of the skills in pre-test and post-test

Categories of skills assessed	Groups	N	Mean	SD	't'
Total	Pre-test total	27	10.33	4.252	13.989**
	Post-test total	27	21.37	5.168	
Skill of giving title	Pre-test	27	1.85	0.907	16.637**
	Post-test	27	5.33	0.832	
Skill of drawing	Pre-test	27	4.22	1.717	9.084**
	Post-test	27	8.11	2.293	
Skill of labelling	Pre-test	27	4.26	2.490	8.270**
	Post-test	27	7.93	2.745	

**P<.01

The two tailed dependant t-test indicated that there was a statistically significant difference between the pre-test and post-test scores with [t(26)=13.98, p < 0.01] for the overall scores. Similarly, t-values for pre-test and post-test scores under skill of giving title, skill of drawing, and skill of labelling [t(26) = 16.637, p < 0.01], [t(26) = 9.084, p < 0.01] and [t(26) = 8.270, p < 0.01], respectively, were significant at 0.01 level.

Further analysis was carried out to ascertain the individual improvement for all the participants of the study. The same is given in Table 3.

Table 3
Analysis of individual gain in pre-test and post-test

Participants	Pre-Test Score	Post-Test Score	Gain Score	Gain Percentage
1	7	21	14	46.66
2	8	22	14	46.66
3	13	27	14	46.66
4	7	15	8	26.66
5	3	15	12	40
6	7	19	12	40
7	10	21	11	36.66
8	10	27	17	56.66
9	15	26	11	36.66
10	10	23	13	43.33
11	3	20	17	56.66
12	12	22	10	33.33
13	4	5	1	3.33
14	10	23	13	43.33
15	11	18	7	23.33
16	18	26	8	26.66
17	14	26	12	40
18	8	21	13	43.33
19	6	18	12	40
20	17	29	12	40
21	18	29	11	36.66
22	12	23	11	36.66
23	6	23	17	56.66
24	14	21	7	23.33
25	10	24	14	46.66

Table 3 reveals that all students have shown improvement in their performance with a variation in gain percentage ranging from 3.33 per cent to 56.66 per cent. Two students improved very little and the gain in score is 1, indicating gain percentage of 3.33. This confirms that intervention leads to improvement with individual variation. Same strategies may not be useful for improving all students at the same level. Either the duration of the intervention has to be increased with the same strategies or different strategies have to

be tried out for further improvement of those students whose gain percentage is minimum. Further analysis and exploration need to be done for identifying the reasons for persisting difficulty and to ascertain the benefits of prolonged intervention.

The data were further analysed to assess the improvement of students under each criterion measured in the test. All the criteria along with the number and percentage of students performing the same in the pre-test and post-test are given in Table 4.

Table 4
Number and percentages of students achieving mastery under each criterion in pre-test and post-test

Sl. No.	Criterion measured	Performance of Students			
		Pre-test		Post-test	
		Number of students achieving mastery	Percentage of students achieving mastery	Number of students achieving mastery	Percentage of students achieving mastery
1.	Title of the drawing	3	11.1	25	92.6
2.	Drawing magnification	0	0	11	40.7
3.	No overlapping of drawing parts	4	14.8	12	44.4
4.	Drawing correct scale bar	0	0	7	25.9
5.	Drawing done by pencil	22	81.5	26	96.3
6.	Neat and clean drawing	17	63.0	24	88.9
7.	Drawing by using scale	18	66.7	27	100.0
8.	Correct labelling	3	11.1	20	74.1
9.	No crossing of label lines	25	92.6	27	100.0
10.	Arrows in labelling	15	55.6	23	85.2

From the results depicted in Table 4, it can be construed that majority of the respondents lacked all the 10 biological drawing and labelling skills in pre-test. This indicates that they could not record and present their observations during experiments accurately in form of diagrams. This casts doubt on the students' understanding

of biological concepts and hence their overall performance in the subject. The result also corroborates the work of Alkaslassy and O'Day (2002), Ostrogona and Mulyandi (1999), Janice and Clement (2008), and others. However, with reference to each criterion shown, there was overall improvement in post-test compared to the performance in pre-test. The percentage of respondents indicating lack or gain in each skill is discussed hereunder based on Table 4.

Title of Drawings

Nearly 90 per cent of students did not indicate the titles of their drawings in pre-test. The title of a biological drawing should be underlined and must indicate the view of the drawing made (Geoff, 2000). Negligence to indicate titles to drawings could be due to lack of guidance by the teachers or forgetfulness on the part of the learners. But 92.6 per cent of students had given title to their drawings in post-test. The strategy that had worked for learning this skill can be one simple instruction and explanation of the importance of title per diagram.

Magnification

During the pre-test, it was noted that none of the students had the skill of magnification of a diagram. Indication of magnification is important for keeping an accurate record of the organism's shape. In one diagram, it was noted that the shape of stomach was rectangular whereas in some others circular. This type of error could be attributed to lack of attention paid to details or due to lack of conceptual clarity about the process of digestion. After the intervention, around 40 per cent of students learnt how to magnify a diagram. This clearly indicates the complexity associated with the development of this skill. The strategies worked for installing this skill may be engaging learners in practical for observation, instructing students about drawing and labelling skills and use of audio-visual aids for more clear magnification so that students understand the concept. In previous studies, it had been found that drawing and labelling skills improve the visual perceptual ability in understanding the abstract concepts. This is so because approximately 80 per cent of our sensory input comes from our visual system and there is a lot of information that can be transferred in a visual way especially in science (Ostrogona and Mulyandi, 1999).

Drawing with Overlapping of Parts

In pre-test, only 14.8 pre cent of students could draw without overlapping the parts. This lead to misconceptions and resulted in perceiving false information. In one drawing, it was noticed that liver was overlapped by gall bladder and both of them were of equal size. The reason behind lack of this skill can be the distorted image and lack of visual perceptual ability and thus no clear concept. In post-test, 44.4 per cent of students did draw diagrams without overlapping the parts and 55.6 per cent of students have still drawn diagrams with overlapping one part with the other part. The strategies worked behind this may be using 3D puzzles of digestive system, audio-video aids for clear magnification and assistance of learners at individual level. In previous studies it was found that it improves the visual perceptual ability in comprehending and understanding the abstract concepts. This is so because approximately 80 per cent of our sensory input comes from our visual system and there is a lot of information that can be transferred in a visual way especially in science (Ostrogona and Mulyandi, 1999).

Making Drawing with Proper Scale Bar

In a morphological diagram, where the objective is to make a life-like representation, it is very important to keep the different parts in proportion to each other. This is achieved by using construction lines and frames. This results in depicting mastery of making proportional drawings. The study shows that none of the respondents were able to make a proportional drawing and even after intervention many could not develop this skill. In one drawing, it was noted that the size of stomach was larger than liver. This is not the case in the real specimen. The largest organ is liver. In another instance, there was no difference between buccal cavity and salivary gland and were drawn in the same position. The size of the structures in drawings, compared to one another was not a true representation of the real specimen as it should be in morphological drawings. In another instance, there was no difference between the size of chest during inhalation and exhalation. This amounts to be an incorrect record and presentation of what was observed since a biological drawing should be a detailed and accurate representation of a specimen. It should depict the real specimen for future reference. Previous studies (Bolanle and Soladoye, 2014) also reported that students have difficulty, many misconceptions, confusion and incoherent

knowledge on some topics which include many abstract concepts that are difficult to understand, to learn and to remember. Lack of the ability to draw proportional drawings could be attributed to lack of observation skills and misconceptions, lack of practice in making of biological drawings, theoretical approach to teaching and learning of biology, and lack of guidance and feedback.

Though the strategies like class discussion, engaging learners in practical for observation, instructing students about drawing and labelling skills, use of audio-visual aids for more clear magnification were made use of, in the post test only 25.9 per cent of students learnt to draw a diagram with a proper scale bar and 74.1 per cent of students sketched with incorrect scale bar. This indicates the need for prolonged intervention by focussing into the aspects cited above to improve this skill.

Drawing in Pencil

It is highly recommended that all biological drawings must be drawn in pencil to allow corrections to be made. The main outlines should be drawn faintly with 2 HB pencil. When satisfied, a sharp HB or 2B pencil should be used to go over the lines firmly. The study indicated that majority of the respondents (81.5 per cent) had the idea that biological drawings are drawn in pencil. However, 18.5 per cent of the respondents used ball pens. Use of ball pen in making drawings of specimens lowers performance in examinations. This could indicate lack of guidance from teachers and poor provision of learning resources like pencils by parents and guardians. It also indicates lack of knowledge about the correct pencils required to make biological drawings. Use of ball pens makes correction of mistakes in the drawings difficult and often leads to untidy drawings. The probable reason behind using ball pen for drawing diagrams can be highlighting the parts. In post-test, only one student had drawn with pen who did not benefit from the strategies used during intervention, reason for which needs to be explored.

Neat and Clean Drawing

In pre-test, 63 per cent of students sketched neat and clean diagrams and 37 per cent of students drew untidy diagrams. In many drawings, it was noted that there were too many shading and sketchy lines. Dempsey and Betz (2001) had explored the reason for untidiness as —

(i) Use of incorrect materials like non-recommended pencil, eraser and paper.

(ii) Lack of competence in drawing of specimen which leads to unnecessary erasing.

(iii) Lack of attention to detail.

But in post-test, nearly 90 per cent of students prepared neat and clean diagrams and around 10 per cent of students did untidy drawings. The strategy that had worked here could be promoting the use of appropriate materials, encouraging observation and creating pleasure for a neat and clean drawing.

Drawing by Using Scale

Drawings in science, especially in biology, are to be done in free hand. In pre-test, 66.7 per cent of students did free-hand drawing and the others used scale while drawing. The probable reasons could be poor development of eye-hand coordination, or inability for making an artistic drawing. In post-test, all the students drew without using scale. The strategy worked here can be the deliberate instruction on drawing of biological diagrams. In an earlier study similar improvement was noticed in free-hand drawing (Dempsey and Betz 2001).

Correct Labelling, Not Crossing Label Lines, Arrows in Labelling

In pre-test only 11.1 per cent of students labelled correctly fulfilling the necessary conditions. In pre-test, 92.6 per cent of students did not cross label lines with others. Crossing labelling lines and lines which does not touch the structures being labelled confuse the reader. These all can be due to inability to follow the directions, lack of observation and most of the times it is confusion. In one drawing, it had been drawn that carbon-dioxide is given out and oxygen is taken during photosynthesis. In another instance, the drawing depicted the chest size to be increasing during exhalation and decreasing during inhalation. In another instance, the stigma was labelled as anther and anther was labelled as stigma. Arrows are given while labelling to clearly indicate the part being labelled. A significant number of students were observed to have missed this simple but important skill during labelling.

In post-test, 74.1 per cent of students learnt to label correctly and still found that 25.9 per cent of students have done incorrect

labelling. And 85.2 per cent of students have put arrows while labelling. There is 100 per cent improvement in post-test in the skill of marking lines to label. The strategies worked for this can be engaging learners in practical for close observation, marking and correction of drawing, giving immediate feedback, use of worksheets after discussion and practical. The labelling skills are very much useful as they help us in remembering the concept learnt through visual form of memory. As noted by Janice and Clement, (2008), there is a strong evidence that when learners draw diagrams with proper labelling to represent the facts, their learning stick in their mind better than pages and pages of notes. Though nearly 30 per cent students picked up this skill during the intervention, it is noticed that even a simple skill of showing arrow needs further intervention for few students among those participated in the study.

Conclusions and Future Study

From this study it can be concluded that majority of the students in Class VII lack drawing skills. Drawing of specimens enables learners to develop observational skills. This enables them to relate structure to function. Probably the recommended practical approach in teaching of biology is overlooked in syllabus coverage. This may be the reason for majority of the respondents having misconceptions. Biology teachers need to keenly supervise and guide individual learners and groups during biology instruction especially during practical sessions, so as to develop the necessary skills in them. A teacher must give intervention right from the beginning of the session so that the students achieve mastery in drawing. Same strategies used in the present study like class discussion or using audio-visual aids or assisting in group may not be useful for improving all students in the same level. Either the duration of the intervention has to be increased with the same strategies or different strategies like continuous assessment tests or combining Biological knowledge with observational skills and then illustrating it with diagrams which are properly labelled (Landin, 2015) have to be tried out for further improvement. This is all the more important because in the present situation when the classroom is converted to virtual and digital media, drawing and labelling skills which are usually picked by students through teachers' modelling are gradually reducing. Hence, it becomes necessary to achieve mastery in drawing and labelling skills so

that it leads to conceptual clarity, reduction in misconceptions, not stopping at surface learning, better performance in science and improved visual perceptual ability. Scientific skills like keen observation, problem solving, drawing and labelling, analysis, synthesis and creativity were not actually being practiced in the sampled school and the drawing of specimens during practical sessions was clearly overlooked. Hence it is recommended that there should be a continuous in-service professional development of practicing teachers and participation in workshops and conferences is required to update them on new innovations in science teaching. Such forums are also important as they enable participants to share their expertise with colleagues. Based on the experience in the field of study, some suggestions can be made for further research. Follow up studies have to be taken up to confirm the sustainability of skills over time. The present study was limited to Class VII students only. So it can be extended to other levels with other subjects. Senior secondary and college students can also be considered for future investigation. The present study may be useful to reform the curriculum for activity-based learning.

As recommended by NCF (2005), the aim of science education is to know the facts and principles of science and its applications, also acquiring skills and understanding methods and processes that lead to generation. To achieve the aforesaid objectives of teaching science, developing drawing and labelling skills can facilitate in achieving the objectives of teaching science like keen observation, problem solving attitude, and learning by discovery/inquiry. Therefore, it can be construed that drawing scientific diagrams sharpens a student's cognitive functions by making them relate structure to function a step forward for cognitive anchoring.

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A Study on Implementation of Inclusive Education at the Elementary Level in the North-Eastern Region

Basansy Kharlukhi*

Introduction

Education is the most potent tool for socio-economic mobility and a key instrument for building an equitable and just society. Elementary education provides the foundation for development of education at higher stages. Hence, elementary education needs to be strengthened. The Constitution of India now guarantees eight years of elementary education to each and every child in the country. Elementary schooling consists of five years of primary schooling and three years of upper primary schooling. Primary education motivates a child towards studies and therefore improves his/her interest to firmly proceed forward. Indian government has launched a number of programmes for spreading elementary education in India, including the DPEP of 1994. A new programme launched by the government with regard to improvement of elementary education was SSA in 2001. The programme was launched with an aim to ensure entry, retention and education of children between 6–14 years of age. Inclusive education is an integral component of SSA which promised 'education for all' by 2010. Many policies and acts have been legislated to make inclusive education a reality. New policies have been formulated to overcome limitations of previous efforts, such as the Action Plan for Inclusion in Education of Children and Youth with Disabilities (IECYD) and The National Policy for Persons with Disabilities in 2006 which stressed on modifying the existing infrastructure facilities, teaching procedures in order to make it more children friendly.

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Inclusive Education (IE) is the need of the hour. It refers to providing quality education to children with special needs in mainstream schools. This was clarified in the Salamanca Statement and Framework Action (1994), which is a landmark for IE. This statement provides directives for reorganisation of all school activities to facilitate learning of CWSNs in mainstream schools. As per the Statement inclusive schools must reorganise and respond to the diverse needs of their students, accommodating both different styles and rate of learning and ensuring quality education to all through appropriate curricular, organisational arrangements, teaching strategies, resources and partnership with their community. There should be a continuum of support and services to match the continuum of special needs encountered in school. Keeping this in view, systematic changes are required in general education system to meet special educational needs arising out of limitations in learning of each child. In India, integration was a major reform of the 1970s, the need for IE become evident from the fact that despite complete financial support under the IEDC scheme for integrating learners with special needs into the educational system, only 2–3 per cent of the total population of these learners is actually integrated into the regular schools. Dissatisfaction with progress towards integration, the costs involved and the advantages of an inclusive environment in bringing about increased acceptance of learners with SEN, led to the demand for a more comprehensive and drastic change which will benefit all children especially CWSN.

IE emphasise not only education of students with disability but a process through which all students including those with disabilities are educated together in regular mainstream schools, with specially designed, appropriate and adequate support in their neighborhood schools. Hence the goal of IE is to prepare all students, irrespective of academic level or ability, disability, caste, culture, religion, language or ethnic group for life, meet the challenges and requirements to participate as equal partners in the society and to contribute to the development and improvement of the community. Few studies were carried out in India and abroad in the area of IE. In India, extensive studies have been conducted in various issues and practices, such as studies regarding policies and implementation aspects, attitudes and awareness levels, studies about use of different approaches and adaptations of curricular and TLMs as well as classroom strategies. Studies conducted

abroad were mostly regarding the attitudes of stakeholders, such as principals, teachers, parents, students, community as well as educational authorities.

Objectives

The following are the objectives of the study:

1. To identify and study the different components available in the schools for providing quality education for CWSN, such as teachers training, curricular/instructional adaptations, teaching learning process, teaching learning materials, evaluation system.

2. To find out the quality of implementing IE and if children with disability are really benefitting from it or not.

Research Questions

The following research questions were addressed in the study:

1. What are the different components available in the schools for providing quality education for CWSN, such as teachers training, curricular/instructional adaptations, teaching learning process, teaching learning materials, evaluation system?

2. Does inclusive education really benefit the children with disability or is it just mere inclusion?

Methodology

The population for the present study was all the Inclusive Elementary Schools from three North Eastern States of Assam, Meghalaya and Tripura. For the present study a sample of 30 Elementary Schools which provide inclusive education was selected that is 10 from each state. The sample also includes State Authority, teachers, and parents. The tools used for data collection include questionnaire, observation schedule, and interview schedule for the head of the schools, teachers, CWSNs, children without special needs, parents, state educational authority. The data collected was analysed by using qualitative technique.

Findings of the Study

Research specifically in the areas of inclusive education in its totality is still very limited. Hence, the significance or importance of this project is to bridge that gap of not only finding out how far

inclusive education in its truest form has been implemented in the schools of the different states in NER but also whether necessary support system has been provided and whether children with disability are really benefitting from the education provided. The present section is concerned with formulating the generalisations of the findings in respect to implementation of IE.

Infrastructure/Facilities Available in the Schools

From the study it was found that (N=30) 86.66 per cent schools have *pacca* building, 6.66 per cent schools have *kaccha* building. This indicates that majority of the schools have a proper building. Looking at the accessibility for children with disability, the study indicated that majority of the schools have ramps and ramps with handrails, whereas 23.33 per cent schools do not have these facilities. Further, when looking at the availability of toilets, 36.66 per cent schools have toilets which are common for all children, 56.66 per cent of the schools have separate toilets for boys and girls with no toilet facility for disabled children but only 6.66 per cent schools have the facility for a separate toilet for the children using wheelchair. It was also found that majority of the schools (that is 76.66 per cent) were using the traditional bench-desk and chair-table as seating arrangement for the students and only 3.33 per cent of the schools have a special seating arrangement for the children with disability. This shows that facilities which are necessary for the CWSN are not properly provided which might lead to less enrolment and retention of CWSN in mainstream schools. It was found that only 3.33 per cent schools have the required aids and appliances for the children with disability. The unavailability of proper aids and appliances may hamper the performance and progress of children with disability.

Academic and Professional Qualifications of Teachers

Looking at the academic qualifications of teachers, it was found that (N=71) 43.66 per cent, of the teachers are twelfth pass and 5.63 per cent teachers are postgraduate. Again when looking at the professional qualifications of teachers, it was found that out of 71 teachers only 42.25 per cent of the teachers have professional qualification or degree, such as D.El Ed, JBT, BTC, B.Ed (general and Special), NTS and D.Ed which is an essential criteria for teaching children with disability. From these trained teachers only 10 per cent have B.Ed in special education. It is also clear that majority

of the teachers do not possess the professional qualification or any training in inclusive education required to teach at the elementary levels and CWSNs. This study found that inclusive education could be successfully implemented if the level of teacher's competency increased and this can be done if proper training and courses are being given to them which will boost their confidence. When it comes to teachers receiving training programmes in inclusive education, it was found that only 11.26 per cent of the teachers were trained in different kind of training programmes. Very few teachers expressed that special schools are still required as these schools have the facilities meant for CWSN. The study further shows that most of the teachers faced many challenges in their teaching. Around 75 per cent of the teachers expressed lack of training to handle CWSNs which requires special skills, such as sign language to teach children with hearing impairment, knowledge braille to teach visually impaired, adequate skills to teach children who are mentally challenged, etc.

Perception of State Education Authorities

The data collected from the State Education Authority indicated that the states have identified children with special needs and majority of them were enrolled in the different schools. However, the data further indicated that there were no teachers trained in this area. In order to assist CWSNs, resource teachers were engaged at the district level but not appointed for each school. This can hamper or slow down the teaching learning of both teachers and CWSNs. The resource teachers are required to prepare IEP and assessment procedures for each child as per need. When it comes to curriculum adaptation, the states have not yet adapted the curriculum but adaptation is being done by the resource teachers themselves in the classroom as per need. The resource teachers and teachers are also responsible for preparing TLM for CWSNs.

Curricular Adaptation by Teachers

From the data collected it was found that 63 per cent of the teachers use local/state language and 9 per cent use english as their medium of instruction during teaching learning process. It was also found that 16 per cent of teachers use mixed language as there medium of instruction. The study found that majority of the teachers in an inclusive classroom that is 60.56 per cent still follows the traditional approach of teaching without proper modification

to meet the needs of CWSNs. Again, only 15.49 per cent uses instructional strategies as per individual needs. 23.94 per cent of the teachers adopted activity based as instructional strategies so as to cater to the needs of all children. When it comes to TLM used by the teachers in classroom, the study shows that 36.62 per cent teachers used basic TLM present in the class, i.e., picture charts, books, globes, maps. Around 21.13 per cent of teachers actually use modified or adapted teaching aids as per needs, such as 2/3 dimensional figures and shapes, blocks, flash card, soft and hard fabrics, velvet paper, ropes, models, real objects or large print materials and any TLM which are tactile in nature which can augment understanding of concepts. However, 11.27 per cent teachers could not give proper response. When it comes to assessment of CWSNs, only 5.64 per cent of the teachers adapt and modified there method of assessment as per individual needs, such as replacing written test by oral test, writing in braille where the resource teacher transcript the braille script into print, breaking questions into parts, simplifying questions, assessing through activities and observation and providing additional time.

Classroom Observations

Through classroom observation, it was seen that the classrooms were congested with no space for children especially children with locomotors disability to move freely. However, majority of the class rooms were well ventilated. Further, there were no modifications in seating arrangement for children with special needs except for children with low vision and hearing impaired they were made to sit in front. When it comes to classroom activities/work, it was observed that 38.47 per cent of the children with special needs lacked confidence, were shy and anxious, hesitant to participate and remained aloof whereas 61.53 per cent were active, showed enthusiasm and were ready to learn and happy. It was also seen that teachers tried to involve, motivate and encourage CWSNs to participate in class activities/work. Interestingly, majority of the children without special needs were friendly, helpful and supportive towards their peer group. It was also observed that assessment procedures were carried out in the same way for all children without any adaptation or modification for CWSNs.

Students Response

The present study found that majority of the CWSNs expressed happiness in coming to school making friends, playing and

interacting with other children. However, they also expressed their shyness in participating in the different activities given or assigned by the teachers either inside the classroom or outside. When asked about support from teachers and other children, majority (90 per cent) of CWSNs share their views and opinion that both teachers and other children without special needs support and offer assistance both inside and outside the classroom whenever required. They also expressed that teachers encouraged them in group activities and took help from their classmates whenever required. When asked whether they felt any discrimination from their teachers, all CWSNs responded positively that they did not faced any discrimination. However, when it comes to learning inside the classroom, majority of the CWSNs expressed that they had difficulty in understanding lessons taught and felt anxious and hesitant to ask the teacher. They were unable to cope with the classwork and have difficulties in copying down points written on the blackboard. It was also found that teachers had difficulty in helping CWSNs learn as they did not have the skills required. Again, when asked about the facilities provided to them majority of the children did not know about these facilities, such as proper aids and appliances, toilet facilities, used of adapted TLMs, etc.

Parents Response

The parents (75 per cent) were of the opinion that their children enjoy studying in the schools together with other children while 25 per cent said that their children don't enjoy going to school since they face difficulty in adjusting with different activities going on in the school due to their disability which prevents them from doing it. Parents shared that schools do not provide training to them on how to handle and help their children at home. This has put them in difficult situation as they could not help them much at home. When asked if they sent their children to school regularly, around 72.5 per cent of the parents agreed that they sent their children to school regularly while 27.5 per cent of them said that they do not send their children to school regularly as the situation and problems of their children do not favour them to do so. Nearly 48 per cent of the parents agreed with the fact that their children were facing difficulties in learning even though teachers are supportive, Teachers could not provide individual help because of the number of students in the class and also lack of special training on the part of teachers while 52 per cent of parents said that their children do

not face difficulty in learning. However, 64 per cent of the parents shared that the schools motivated and encouraged their children to participate in different activities, like sports and games, drawing, painting, etc. and they enjoyed taking part in these activities. When asked if they attend Parents-Teachers Meeting, 75 per cent of parents said that they do attend Parents-Teachers Meetings (PTM) which of parents were organised regularly and that they shared their problems in these meetings, such as performance of their children, difficulty in understanding classroom teaching learning, facilities in the schools.

Conclusion

The contribution of the study is that the schools as a whole while answering the questionnaires as well as the interview schedules, were made aware of the various requirements needed for making schools really inclusive schools and also the importance of trainings in the field of inclusive education. The schools and teachers are aware that inclusions thus not end in enrolment alone but making a school child-friendly and providing quality education is the need of the hour. From the discussions of the findings it may be concluded that there is still a long way to go for making schools a place where all children irrespective of ability or disability participate, learn and benefit from the education provided to them. Further, we can say that inclusive education is possible if there are appropriate support system provided to all concerns such as required infrastructure and facilities, funding for schools, providing trainings for teachers in the area of IE and aids and appliances and also curriculum adaptations for children.

Effect of Therapeutic Story Making Intervention on Reading Skills and Academic Resilience

NARAYANAN ANNALAKSHMI*

Introduction

Adolescent students from low socio-economic backgrounds studying in government schools located in rural areas are confronted with several cumulative risk factors placing them at-risk for both healthy psychosocial adaptation and academic success. The risks for development among these adolescents include economic factors like low income status that deprives them of several essential resources, school factors like crowded classrooms and understaffing in school leading to minimal social support in the school context, familial factors like lack of parental support for education, parental unemployment, physical abuse in the family, and sociopolitical factors like belonging to lower caste and lack of political support (Annalakshmi, 2015). These risk factors jeopardise not only academic performance and retention in school but also their psychological wellbeing (Mallin, Walker and Levin, 2013). These at-risk students display problems in academic, emotional, social, and behavioural areas of functioning. Reading difficulty seen in younger children from this background grows consistently as they grow into adolescence that directly affects their academic performance. They also experience internalising and externalising problems that make academic success more challenging.

The efficacy of therapeutic story making delivered by teachers or parent in enhancing emotional, social and academic functioning in children with emotional and social problems coupled with poor literacy has been well documented (Waters, 2010). In the original

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format of the therapeutic story making conceived by Waters (2004) involved pupils-at-risk of exclusion and with poor literacy creating stories with their parents or teachers which not only helped the adults gain a good understanding on the emotional and behavioural problems of the child but also led to better reading skills among the participants.

In the present study, the efficacy of therapeutic story-making intervention delivered by peer mentors in enhancing reading skills and academic resilience was evaluated. While many studies have reported efficacy of mentoring by a non-parental adult in promoting resilience among at-risk children and adolescents studies (Southwich, Morgan, Vthilingam and Charney, 2010) that have used peer mentoring for this target group have not been reported. In the present study, peer mentors who also come from a background similar to the student mentees delivered the intervention. Since peer mentors and the mentees shared similar background they could relate better to each other making it easier to provide and receive reliable support in addition to enhancing interpersonal relatedness. The similarity also had a unique advantage in peer mentors being a perfect role model for the mentees. The peer mentors may be able to inspire and motivate the student mentees better than a non-parental adult who is not from a background similar to the student mentees.

Objectives

The present study aimed at designing a therapeutic story making intervention to be delivered by peer mentors and evaluating its efficacy on improving reading skill and academic resilience among at-risk students. The study examined the efficacy of the intervention in effecting change both in the student mentees as well as the peer mentors.

Methodology

The methodology adopted was predominantly quantitative although some qualitative data were also used. Data were collected from student mentees, peer mentors as well as teachers to evaluate the efficacy of the intervention. Quantitative data were collected using standardised psychological tools that assessed reading comprehension, academic skills — reading/language art, school engagement, academic self-efficacy, perceived social support, resilience, conscientiousness and psychological problems. Semi-

structured interview schedule was used to examine the effect of intervention on student mentees and peer mentors. Teacher-based assessment of the impact of the intervention on academic skills as well as problem behaviours may be seen as one of the unique strengths of this study.

A single pre-test–post-test–follow-up design was employed to test the efficacy of the therapeutic story making intervention in improving reading skills and psychological resilience. The project involved developing a reading comprehension test and then using it to evaluate the efficacy of the intervention. The project was carried out in three phases:

- Phase I involved developing a reading comprehension test in Tamil for Class VII students.
- Phase II involved providing training to 'to-be-mentors' to delivers therapeutic story making intervention to student mentees.
- Phase III involved peer mentors delivering the therapeutic story making intervention to student mentees.

Multiple regression analysis was used to examine the best predictor of academic achievement at the baseline and to identify the best predictor of gain in academic achievement after the intervention. Thematic analysis was carried out on the qualitative data collected through interviews with student mentees, peer mentors and teachers to examine the efficacy of the intervention.

Findings of the Study

The evidence from this study clearly suggests that therapeutic story writing has improved reading skills as well as academic resilience among the participants. Improvements in the various domains like academic, social and personal were evident as a result of the intervention. Specifically, the intervention has had the following effects on all participants, both student mentees and peer mentors:

- Helped participants improve reading skills with regular reading exercise where they read out their stories as well as passages from the textbooks.
- Fostered resilience in the participants in the process of story writing that emphasised resilience characteristics.

- Promoted conscientiousness as a result of increased sensitivity to discipline, planning, organising, etc., because of working on such themes to make stories.
- Enabled the participants to use story writing as a medium to process and express their emotions thereby improving their internalising as well as externalising problems.
- Built academic skills in the participants via improving specific skill like identifying a main idea, identifying detail, grammar, written communication, vocabulary, phonemic awareness, phonics, generating and answering questions, visualising ideas, drawing conclusions, identifying inferences, determining author's purpose, and understanding point of view.
- Encouraged student participants to develop cooperative and trusting relationships with peers mentors and vice-versa.
- Increased student mentees' interest to help others because of their 'receiving' from the peer mentors.
- Increased interest to engage with story writing leading to increased interest in academics.
- Improved participants' school engagement, school attendance and academic performance.

Implications for Educational Policy and School Practice

The present study has direct relevance for educational policies related to improving learning outcomes of students from at-risk population. Enabling inclusive education implied by education of SCs, STs, minorities as well as students from rural background cannot be realised in the fullest spirit unless their needs in personal, social and academic domains are met and problems in these domains are attended to. Today, the Ministry of Human Resource Development of Government of India has identified comprehensive education as one of its priorities. Comprehensive education focussing on ethics, physical education, arts and crafts, and life skills can be achieved through implementing therapeutic story making intervention as a part of school curriculum. The therapeutic story making intervention has significantly improved internalising and externalising problems, and resilience in the participants. Several studies have suggested that resilience building intervention can improve health behaviours among children and adolescents who are at-risk. The findings of the study hence are also relevant to child health.
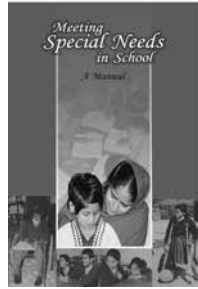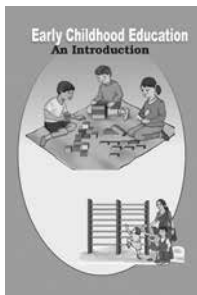
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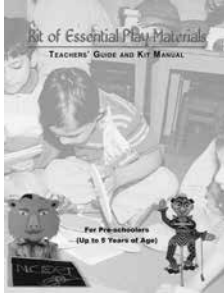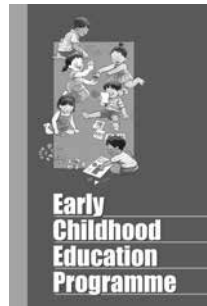
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