Research Review Article

Elementary Education in India
A Review of Research

C.G. Venkatesha Murthy*
Mythili Ramchand**

Abstract

Elementary education in India has faced the challenges of access, retention, equity and providing quality education to children. Research in elementary education in India has focused on these aspects. The paper first highlights the international perspectives on elementary education. It then reviews Indian studies conducted after 2000 under 10 sections: Access and enrolment, retention and dropout, teaching-learning process, learning achievement, Education of the socially disadvantaged, availability of teachers, their dispositions and training, learning resources including textual materials and ICT, community participation, infrastructure, resources and grants, and policies and their implementation. Each section summarises the research trends, gaps and offers suggestions for future research. It also describes in detail an empirical analysis of more than 400 researches conducted for award of various degrees as well as research papers or reports. The review recommends that future research should prominently focus on in-depth study of various issues as recommended by the National Education Policy, 2020 by adopting qualitative methodology.

सार

भारत में प्रारंभिक शिक्षा के समक्ष कई चुनौतियाँ, जैसे बच्चों का विद्यालय में पहुंच, अवधारण, इक्विटी और गुणवत्तापूर्ण शिक्षा इत्यादि शामिल हैं। प्रारंभिक शिक्षा में अनुसंधान द्वारा इन पहलुओं पर ध्यान केंद्रित किया गया है। यह शोध पत्र सर्वप्रथम प्रारंभिक शिक्षा के परस्पर

* *Professor* and *Dean* (Research), Regional Institute of Education, Mysuru (e-mail: venk_murthy2003@yahoo.co.in).

** *Professor*, Centre for Education, Innovation and Action Research, Tata Institute of Social Sciences, Mumbai (e-mail: mythili.ramchand@tiss.edu)

अंतरराष्ट्रीय दृष्टिकोण पर प्रकाश डालता है। तत्पश्चात सन 2000 के बाद किए गए भारतीय अध्ययनों की समीक्षा की गयी है जो 10 खंडो में विभाजित है : प्रवेश और नामांकन, अवधारण और ड्रॉपआउट, अध्यापन-अधिगम प्रक्रिया, अधिगम उपलब्धि, सामाजिक रूप से वंचितों की शिक्षा, शिक्षकों की उपलब्धता, उनके स्ववृत्ति और प्रशिक्षण, पाठ्य सामग्री और आईसीटी सहित अधिगम संसाधन, सामुदायिक भागीदारी, आधारभूत संरचना, संसाधन और अनुदान, नीतियां एवं उनका कार्यान्वयन। प्रत्येक खंड के अंत में शोध के रुझान, कमियों तथा भविष्य के अनुसंधान के लिए सुझाव भी दिये गये हैं। इस शोध समीक्षा में 400 से अधिक शोधों का एक विशलेषण भी प्रस्तुत किया गया है जिसमें डिग्री प्राप्त करने हेतु किये गये अनुसंधान, शोध पत्र एवं प्रतिवेदन शामिल हैं। यह समीक्षा इस बात पर बल देता है कि भविष्य में प्रारंभिक शिक्षा से सम्बंधित अनुसंधान में राष्ट्रीय शिक्षा नीति, 2020 में सुझाए गये मुद्दों का गुणात्मक विधि द्वारा गहन अध्ययन किया जाना चाहिए।

Introduction

Providing education to children at the elementary school stage has assumed significance as it is a vital stage for the development of any nation. It lays the foundation for the development of an autonomous and informed citizenry. That is why, all the countries across the world are engaged in the process of planning, preparing and implementing school education with an emphasis on elementary education. Indeed in any nation, its educational system is based on its historical, political, social, cultural and economic realities and aspirations. However, currently, international level reform initiatives and compulsions inform and influence individual country's system of education in varying degrees. To gain a more nuanced understanding of this complex backdrop under which educational systems operate, researches have been conducted in varied contexts, using a variety of conceptual, empirical and normative frameworks.

In India, after the year 2000, there have been a series of policy directions aiming at the improvement of access and quality of school education. Prominent among them are the launch of Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan, centrally sponsored scheme of teacher education, promulgation of Right of Children to Free and Compulsory Education Act, 2009 and now the Samagra Shiksha. The policy of providing all children up to the age of 14 years free and compulsory education has received broad national and international support. The National Education Policy, 2020 has recommended redesigning of the stages

of school education: Foundational Stage (3 years of Anganwadi/ pre-school+grades 1 and 2; 3–8 years), Preparatory Stage (Grades 3–5; 8–11 years), Middle Stage (Grades 6–8; 11–14 years), and Secondary stage (Grades 9–12; 14–18 years). This review however, focuses on studies related to Grades 1 to 8.

At the international level, it has been reported that free and compulsory schooling increases the probability of children obtaining education beyond middle school in developed countries (Ou, 2013; Smith and Joshi, 2016). Alongside policies, an enabling environment is important (Opoh et al., 2015). Studies indicate that students value a feeling of getting success in schools, in terms of learning the required competencies along with a chance to interact with adults to continue to remain in school (Ekstrand, 2015). Literature also indicates that targeted spending (Machin, McNally and Wyness, 2013) and smaller schools (Leithwood and Jantzi, 2009; Bascia and Faubert, 2012) are beneficial to children from disadvantaged backgrounds. Increased state role (Janet and Thomas, 2005) and accountability policies (Diamond, 2012) were problematic as well as language policies that imposed English as a medium of instruction in contexts where, English was not the language of the local communities (Kamwendo, 2016; Mokibelo, 2016; Trudell, 2016). Standardised tests have led to unintended negative consequences (Feniger, Israeli and Yehuda, 2016).

A creative and dynamic school environment showed a positive effect both on student attainment and teacher professional development (Davies, 2013). Also in such cases, leadership agency was found more important than policy or legal freedoms for ensuring curriculum innovations and effective implementation (Greany and Waterhouse, 2016). Critical studies of curriculum implementation point to the pervasive role of the hidden curriculum in excluding the underprivileged (Jay, 2003). Trends indicated increasing politicisation of the curriculum development process with a greater focus on managerial aspects (Kelly, 2009). While, it is important to measure fidelity of implementing the curriculum interventions and its effect on student learning outcomes, high stakes assessments were found to be problematic (Wyse and Torrance, 2009). Instead, literature indicates that formative classroom assessments have the potential to ensure evidence of learning visible as assessment data. More importantly, they were found beneficial to the learning of both students and teachers in the long run (Clark, 2015).

Research shows that technology interwoven comprehensively into pedagogy acts as a powerful tool for effective learning of elementary students (Chauhan, 2017). ICT use has also been proved effective for inclusive education, be it for students from low socio-economic status (Callow and Orlando, 2015), students with disabilities (Arthanat, 2015) or gifted students (Zimlich, 2015). ICT integration in classrooms was shaped by factors such as teacher attitudes and expertise, available equipment and support, pedagogical decisions related to working with technology and the particular student group participating in the technology use (Badia et al., 2013; Bielefeldt, 2012; Tondeur et al, 2013). The impact of mobile technology were extensively studied. Two of its main impacts are facilitating access to information and increased engagement in learning (Akçayır and Akçayır, 2017). However, studies on the use of other specific technologies and tools are fragmented and a scarcity of comparative studies (Boyle et al., 2016) either among the different technologies or between them and 'traditional' teaching methods preclude possibilities of drawing conclusions about their impact.

Experiences of countries like Finland provides evidence that adopting inclusive policies can lead to an education system that ensures both quality and equity (Halinen and Järvinen, 2008). Inclusive schools are found to have a positive effect in terms of developing friendships and reducing abusive behaviour (Bunch and Valeo, 2004).

Action research has gained wide acceptance in the education sector. Later reviews indicate that action research theory and practices are remodeled in local contexts and are being used to support educational reforms (Somekh and Zeichner, 2009). A common feature across all of them is an attempt to resolve issues or generate new practices through a reflective process of inquiry and knowledge generation (*ibid*). However, there is a lack of robust literature on building theory from action research, and on action research and complexity (Dick, 2004). Literature reporting on the evidence of its impact on the field is also scant.

In India, attempts were made to review the researches related to elementary education earlier. The fourth survey of research in education contained a chapter on research in elementary education (Grewal and Gupta, 1991), the fifth survey on primary education (Dave, 1997) and sixth survey on management of elementary education (Jain, 2007).

The sixth survey reviewed studies conducted till 2000. Against the above backdrop, this review attempts to capture the broad trend of research that has been undertaken in India after 2000. It also attempts to find out gaps in the researches and suggest future areas for research.

Research in the Indian Context

The present review of research conducted in India in the field of elementary education has been divided into 10 sections: Access and enrolment, retention and dropout, teaching-learning process, learning achievement, education of the socially disadvantaged, availability of teachers, their dispositions and training, learning resources including textual material and ICT, community participation, infrastructure, resources and grants and policies and their implementation.

Access and Enrolment

The health of any educational system depends upon how its society is providing access to education and is enrolling its children in the educational system. Both access and enrolment are crucial at the elementary levels. With the implementation of SSA since, 2002 and further policy support from the RTE Act of 2009, access to school education has eased out in India. The issue of providing access has almost saturated. On the issue of access and enrolment, the situation has improved drastically and yet there are issues the system is still grappling with. On these issues, researches have been undertaken in different contexts.

Access

Providing access to elementary school children is one of the responsibilities of the state. "Article 21-A of the Constitution of India and its consequent legislation, the Right of Children to Free and Compulsory Education (RTE) Act, 2009 became operative in the country on 1 April 2010. This development implies that every child has a right to elementary education of satisfactory and equitable quality in a formal school that satisfies certain essential norms and standards. The reform processes initiated in 2010 has since then continued. As per *Annual Report 2014–15* of MHRD, "All States/UTs have notified their State RTE Rules". As per the Right of Children to Free and Compulsory Education (RTE) Act, (2009), children at the primary level must have access to a school within 1 km of radius from their habitation and the upper primary

school children within 3 km of radius. The ultimate objective of this provision was to ensure that children who did not stay out-of-school feel encouraged to attend school and continue their studies. The central and state governments have taken initiatives of providing access to elementary education in formal as well as alternative modes of education to all children. Under Universal Access, the central government has taken the following initiatives (MHRD, 2015-16): Opening of new schools, special training of teachers for mainstreaming out-of-school children, providing residential transportation or escort facilities to the needy ones, and distribution of uniforms and learning material.

Education Guarantee Scheme (EGS) and Alternative and Innovative Education (AIE)

The EGS and AIE are important components of SSA to bring out-of school children into the fold of Elementary Education. The scheme envisages that child-wise planning needs to be undertaken. It is planned as an intervention that addresses the need for inaccessible habitation where there is no formal school within the radius of 1 km and where at least 15–25 children of 6–14 years age group are available who are not going to school. In remote habitations in hilly areas even for 10 children, an EGS school was allowed to be opened. Provision was made to upgrade EGS centres to primary or upper primary schools, along with teachers, and infrastructure facilities as mandated under RTE Act, 2009.

Alternative and Innovative Education (AIE) interventions were planned for specific categories of deprived children, for example, child labour, street children, migrating children, working children, children living in difficult circumstances and older children in the 9+ age group — especially adolescent girls are supported all over the country.

A sizable number of out-of-school children were in the habitations where schooling facility is available but these children either did not join the school or dropped out before completing their schooling. These children may not fit into the rigid formal system. To bring such children back to school; Back to school camp and Bridge Course strategies were implemented. Bridge courses and Back to school camps can be residential or non-residential depending upon the need of children. (Source: National Portal Content Management Team, Reviewed on: 19.01.2011) There are certain studies conducted by researchers on the above issues.

There are a few studies on alternate schooling. In Uttar Pradesh, schools were opened in 53 per cent of the un-served habitations. In the previous academic session, alternate schooling facilities were available in only 35 per cent of un-served habitations (Srivastava, Pandey, and Srivastava, 2008) while, in Rajasthan alternative schools provided access to schooling facility to children in the age group 6-14 residing in hamlets or difficult areas. Schools worked for 4 to 6 hours per day and timings were flexible to suit children needs (Chakraborty and Khanna, 2008). A study conducted at the national level on the role of EGS and AIE centers in mainstreaming the children to formal schools in Rajasthan and Madhya Pradesh found that the EGS and AIE centers were predominantly run by the government with the help of community and were providing access to children who were not going to school earlier. There was no difference in the running of EGS and AIE centers except the timings. Both the states differed on the issue of mainstreaming (Sangai, 2004).

Studying the effectiveness of the Education Guarantee Scheme (EGS) in covering out-of-school children in Assam, it was found that all EGS centres satisfied the norms of their establishment. Community members were of the opinion that all out-of-school children had been covered by the EGS and in that the dropout rate was moderate. *Shikshamitras* made EGS accessible to children by convincing their parents and teaching in a joyful environment. In *Shiksha mitras*' view their centers were regular (Sarkar and Baruah, 2008). In West Khasi Hills district, EGS centers ran from 6.00 am to 9.00 am to cater to the needs of working children. Most of the EGS centers lacked basic facilities, such as toilets, drinking water, sufficient sitting space, blackboards, etc. Enrolment was low and teachers were untrained. Some of them were graduates. Majority of teachers were women. Children were not provided with learning materials. Grants were released annually. Enrolment in centers was low as the children were engaged in sibling care. Community participation was poor and the supervision system of EGS centers needed improvement (Lyngdoh et al., 2006).

On the issue of Residential Bridge Course facilities (RBCs) in Andhra Pradesh, it was found that most of the RBCs were located in rural areas. Majority of the RBCs started during the years 2000–2006. The highest number of children enrolled in RBCs was 222 and the lowest number was 54. Most of the enrolled children had

dropped out-of-school at different stages. However, one-fifth of them were never enrolled in the school earlier (Devi and Kumari, 2007). Attempting to mainstream the children from non-residential Bridge Courses (NRBC) to formal schools in five districts of UP, it was found that most of the NRBC centers were working in the constraints, such as inadequate space and lack of basic facilities like drinking water and toilets. RBCs enjoyed certain advantages over NRBCs for obvious reasons (Saluia, 2008).

Studying the status of *Madhyamik Shiksha Kendras* (the Institution for upper primary level) in West Bengal, it was found that, nearly half of the centers had one or more than one high/higher /junior basic schools within the 3 km radius to meet the demand of elementary education in that particular area. Total enrolment in sampled centers varied from 117 to 290 with PTR varying from 22 to 48. In all the centers, girls' enrolment was higher as compared to the boys and their proportion varied from 54 per cent to 70 per cent. Most of the students admitted to the *Madhyamik Shiksha Kendras* were those who could not be accommodated in government schools due to the intake capacity of the schools at the elementary level (Salam and Mandal, 2005).

Enrolment

The enrolment in the country has moved quite steadily over the years except at certain points when the enrolment decreased, i.e., during 2008–09, it was lesser compared to the previous year 2007–08. Likewise, at the primary level, 2001–02 figure was lesser than the previous 2000–01, 2012–13 was lesser than the previous year 2011–12. At the macro-level, it may be difficult to attribute any specific reasons. However, it is a fact that the enrolment figures in the country were progressing (Source: Statistics of School education, 2007–08, MHRD; Educational statistics at Glance, 2011; Statistics of School Education, 2010–11, MHRD; and U-DISE, NUEPA). There are a number of research studies conducted on different issues related to enrolment at the elementary level.

General Issues of Enrolment

A national evaluation of Kasturba Gandhi Balika Vidyalayas (KGBVs) in 12 states found that most of the states had a high proportion of older girls who had dropped out. In states like Arunachal Pradesh, Bihar, Gujarat, Rajasthan and Uttar Pradesh,

girls who were never enrolled were also admitted in the KGBVs, with their proportion varying from 69 per cent in Gujarat to 11 per cent in Rajasthan. Across the states, girls in most of the KGBVs seemed to have settled down well and were happy and confident (Gender Unit, TSG-SSA, 2007). While assessing the functioning and effectiveness of KGBVs in 12 districts of UP, it was found that in most of the districts, the school building of KGBV was under construction and the school was running in DIET. In all 1059 girls were enrolled in 12 KGBVs visited by the teams. Most of these girls were from OBC category followed by SC/ST, general and Muslim categories (Mehrotra, 2006).

The effect of NPEGEL on girls' education in the educationally backward block with non-NPEGEL blocks in Haryana was studied and it was found that there was a decrease in the enrolment at the primary level from 2002–03 to 2005–06. In upper primary classes there was an increase in enrolment; for SC category the increase was 13.4 per cent and for backward category 9.1 per cent; the overall increase being 5 per cent. In non NPEGEL blocks the enrolment decreased by 7 per cent (overall) at primary level. No difference was observed in enrolment at upper primary level from 2002–03 to 2005–06. However, increase in enrolment was observed for the SC (11.5 per cent) and OBC (8.8 per cent). Assessing the impact and effectiveness of innovative programmes in girls' education programme in Uttarakhand covering upper primary schools in 6 districts, it was found that barring the years 2001–2002, girls' enrolment in the selected upper primary schools was higher than that of boys during the last five academic sessions. The proportion of girls' enrolment improved over a period of five years particularly for SC girls (ORG Centre for Social Research, 2006).

In a study comprising of 45 districts of Madhya Pradesh, enrolment of students was found to be 100 per cent to 105 per cent in the districts. The average attendance of students was 69 per cent (range 63 per cent to 80 per cent) at the primary level and 73 per cent (range 69 per cent to 88 per cent) at the upper primary level (Rajya Shiksha Kendra, 2003). In Rajasthan, a survey was conducted which saw district wise variations in average enrolment of the girls at primary and upper primary stage. At primary school level, the lowest was 31 and highest was 71, and average enrolment was 53 per cent. At upper primary school level, the average enrolment of girls was 116 (Rao, et al., 2008).

A sample survey of school children in 5 districts found that, in all 16,878 children in the age group of 6–14 years were mapped from 11,295 households enlisted during the course of study. About 54.4 per cent of them were boys and the rest were girls. Among the total children identified in the age group of 6–14 years, 69 per cent were in the age group of 6–11 years, while the rest (i.e., 31 per cent) were between 12 to 14 years of age. The majority of them were enrolled in different types of schools. Less than 1 per cent of children were enrolled in alternative schooling systems, such as EGS, AIE, etc. While two-third of the children were enrolled in government schools and nearly a third were enrolled in private schools. In urban setting, 51 per cent were in private schools (Misra and Baraj, 2008).

In a study of 13 districts of Uttarakhand, it was found that out of a total of 5,29,025 children in the age group of 6–14 years 94 per cent of them were enrolled in school. Around 45 per cent were girl children, out of which 17.2 per cent were in the age group of 11–14 years and 27.9 per cent in the age group of 6–10 years. Amongst boys, 21.40 per cent were in the age group of 11–14 years and 33.5 per cent were in the age group of 6–10 years. Across the districts, enrolment ranged from 93.2 per cent to 99.6 per cent (Sharma,2007). In a comparative study of birth rate and enrolment rate of children in Gujarat, it was found that the ratio of the school-going children to the total children in the age group of 5 to 12 years was 84.1 per cent in 2003 that got improved by 3.8 per cent points in 2004. The boys' enrolment improved by 3.8 per cent points in two consecutive years while, the girls' enrolment improved by 3.7 per cent points during one year. Better performing districts were comparatively smaller in size in terms of population. Districts like Ahmedabad, Rajkot and Surat showed a lower enrolment ratio despite, having large enrolment in schools. Districts like Dangs, Narmada and Banaskantha showed an improvement in enrolment ratio (Shah et al., 2006).

Evaluating the impact of Integrated Education for Disabled intervention with a focus on enrolment and retention in schools of Gauhati, it was found that over the last three years there has been improvement in the identification of CWSN. Out of the total CWSN identified, two-third were enrolled in the schools in 2006–07 (Das, 2007). While, in Jharkhand out of 66,721 children enrolled in these schools, there were 1,023 CWSN with 58.7 per cent

boys and 41.3 per cent girls. Enrolled boys (CWSN) were 1.8 per cent of the total boys' population and enrolled girls (CWSN) were 1.3 per cent of the total girls' population (Chadha, et al., 2005).

Impact Studies

In the Terminal Assessment Survey (TAS) for DPEP Phase II districts of Rajasthan, it was found that after the intervention of DPEP, enrolment increased from 2.1 million children in 2001–02 to 2.5 million children (increase of 17 per cent over baseline) in 2006–07. Girls' enrolment increased from 0.9 million in 2001–02 to 1.18 million in 2006–07 (increase of 26 per cent). The overall gender gap in nine districts came down from 12.5 per cent in 2001–02 to 5.3 per cent in 2006–07. The gender gap was reduced to less than 5 per cent in Jaipur (4.1 per cent) and Dausa (3.8 per cent). It reduced from 14.9 per cent in 2001–02 to 5.8 per cent for SC and from 13.1 per cent to 3.9 per cent for ST categories (Singh et al., 2008).

Causes of Low Enrolment

Studying the causes of low enrolment of SC and ST girls in primary schools in four districts of Gujarat, it was found that the enrolment of SC/ST girls was low in schools. Nearly half of the sampled schools had 60 per cent to 90 per cent enrolment of SC/ ST girls. Low enrolment was due to the children's involvement in domestic work, large family size and economic backwardness, lack of awareness about the benefits of education, migration and social customs such as polygamy and underage marriages. Teachers' non-teaching activities, their transfers, home not being in the village and lack of female teachers in the school also resulted in low enrolment of girls (Shah et al., 2006).

Studying the problems of enrolment among the students of primitive tribes of Odisha, it was found that most of the tribal schools were single teacher schools and were held either in thatched huts or in open spaces. Pupil-teacher ratio was very high and the attendance rate was low. Schools lacked a systematised and suitable curriculum, relevant to their lifestyle. Parents had little faith in education. Teachers lacked proper training to influence the Tribal. Children lacked adequate verbal ability and achievement motivation (Acharya, 2007).

In Maharashtra, it was found that during 1998–99 to 2003–04 enrolment of children in Classes I and II declined by 9 per cent.

This was more pronounced in the DPEP districts and in non-DPEP districts, the decline was only 3 per cent from the base year. This may be because when most of the children of age five got admitted in the first grade in a certain year, in the next year, the availability of children went down. The impact of the Household Enrolment Survey was visible in many of the districts. In DPEP districts where this survey was initiated in the year 1997–98, changes in the form of bulk enrolment in Classes I and II were noticed. The study revealed a sharp difference in infrastructure facilities among the schools. Decline in enrolment was evident in significant number of schools with poor infrastructure facilities.

At the national level, among the children who were out-of–school, 68.26 per cent were those who never went to school and 31.7 per cent were those who had dropped out from school after one or more years of schooling. Among those, who were reported to be attending school in the age group 6–13, an overwhelming number of 73.07 per cent were in government school, in the private recognised schools, 0.66 per cent in private unrecognised schools and 0.68 per cent in AIE centers, Madarasa etc. More than 10 per cent of the urban children in the age group of 6–13 year was living in slum areas and 3.74 per cent of these children were out-of-school. Estimates provided by the survey were expected to be quite reliable at the level of the country and for major states, as the sample was fairly large and representative of all the regions (RESU and Social and Rural Research Institute – IMRB International, 2005).

Thus, different issues concerning access and enrolment have been studied. However, at this time researchers start penetrating deeper into the same issues for quality in all aspects of access and enrolment. Hitherto, researchers have studied access and enrolment as given manifest facts. There is a need to see issues of access and enrolment not just as facts but as dynamic issues where and why access and enrolment are looking up and where they are suffering. This is an area that requires larger institutional researches. The different states can also take it up as multi-centric studies where, the local realities and dynamics can be understood better. At the macro-level decisions can be taken to facilitate systemic reforms.

Retention and Dropout

Attendance of Students

Retaining learners in the system is an important challenge. There are researches on different aspects of retention covering status

and impact of retention. In a national-level study focusing on the attendance of students in primary and upper primary schools in 20 major states, it was found that overall, average attendance rate of students was 68.5 per cent at primary and 75.7 per cent at upper primary level. The attendance rate of girls was a little higher than that of boys. At the upper primary level, there was not much difference between attendance rates of different social groups. It was between 76 per cent and 79 per cent. The lowest attendance rate was in Class I (65.6 per cent), which increased gradually by 2 to 3 percentage points from one class to the next. However, there was no such increase from Classes IV to V. The overall average attendance was a little lower in rural schools than in urban schools (68.0 per cent and 71.2 per cent respectively at primary level). But in some states, the opposite was the case. The main reasons for children being absent from schools given by headteachers, teachers and VEC members were lack of adequate school, teachers' shortage and overcrowded classrooms, children requirement for household work or sibling care at home, children required to help parents in agriculture or other occupational requirements or being involved in some income generating activity and parents' indifference or lack of interest in child's education. Parents mostly felt that lack of facilities at school and the child's unwillingness to go to school were main reasons for frequent absence from school (RESU, TSG-SSA, 2008).

Studying the effect of school and home factors on the attendance of children at the primary stage in five districts of Karnataka, it was found that variation was observed in the attendance rate of students across districts. The phenomena of irregular attendance and dropout was observed to be highest in Class IV followed by Classes I and III. Irregular attendance was found to be higher amongst rural children. Long absence, irregular attendance and dropout of students were prevalent more in schools with unfavourable environment having untrained teachers, lacking TLM and midday meals and having children from families with low socio-economic status and disadvantaged social groups (SC/ST). A significant positive relationship was observed between attendance and home variables. The reasons for the children not being in school were poor economic status of parents, lack of home support for education, strict teachers, non-availability of learning material and lack of basic facilities in schools (Kulsum, 2008). In Uttar Pradesh, students' attendance rate at primary schools was 64 per cent

and at upper primary schools it was 67.0 per cent (Ahmed, 2008). In 45 districts of M.P. the average attendance of students was 69 per cent at the primary level and 73 per cent at the upper primary level. Students' attendance at primary level was between 63 per cent to 80 per cent and 69 per cent to 88 per cent at the upper primary level (Rajya Shiksha Kendra, 2003). The retention rates in Mumbai were marginally higher than in Delhi (Banerji et al., 2005).

Factors influencing Attendance and Retention

Different factors have been found to influence the retention and attendance of students. They include the following: Innovative multimedia programme (CAL Team and Singh, 2007), teachers' attendance (CMS, 2008), teachers' presence (Oxi-Zen Research Group, 2008. IED intervention lead to high retention of CWSN children (Das, 2007), computer education (Das, 2008), mid day meal (Day et al., 2008), interesting teaching learning, supplementary learning material, good learning environment, better communication skills and command on medium of instruction and subject matter (Kishore and Kulhari, 2008), cleanliness in the classrooms, cleanliness of dress of students, activity-based-education, application of TLM, attractive behaviour of teachers with students and favorable environment (Sahu, 2006), free textbook distribution (Sarkar, 2008), school-community networking. Major incentives were given to children covering scholarship, mid-day meal, uniform, cycles, textbooks (Srivastava et al., 2008), mid-day meal programme (Subramanyam, 2009), residential bridge courses to facilitate CWSN children and got mainstreamed (Rastogi and Batra, 2008), retention of girls in schools due to the influence of vocational training, (Gender Unit, TSG-SSA, 2008). Shah and Chaudhari (2006) found that attendance of girls also depended on their guardians' awareness.

Several other factors also influence attendance and retention. Included among these were factors within school and classroom processes, the quality of classroom processes, use of corporal punishment, untrained teachers, poor participation of parents and community in school activities, non-conducive physical and educational facilities and teachers' professional qualifications (Soni, 2005), poverty or assisting parents in economic activities (Rao et al., 2008).

Dropouts

Normally, dropouts are those children who absent remains from school continuously for a long time without permission from the school authorities, as stipulated by the respective states. Different States have their own definitions of dropout and equally important is that different States have their own strategies in arresting dropouts. It is seen that, the dropout rates have reduced over the years (*Statistics of School Education, 2011–12, MHRD, GoI).* However, dropout is an eternally disturbing phenomenon of school education system. There are different strategies used by the system in different contexts. Researchers have identified different factors as responsible for dropouts. There are economic factors, social factors, family factors, health factors, interest factors and school related factors that contribute to school dropouts. Economic factors covering poverty (Soni, 2005; Sarkar and Baruah, 2008; Lochan, 2007), slum dwelling (Duraisamy, 2006), poor social economic background (Sudhir, 2003) and continuing with of the father's occupation (Patel et al., 2006) and additional income generation (Shekhar, Nair, Prabhakar, and Rao, 2008) are the factors that force children to dropout.

There are other social factors responsible for dropout. They include engagement in ancestral occupation (Kristian and Gupta, 2006), not considering education as important by some communities (Misra and Baraj, 2008), illiteracy of parents and lack of awareness in the community about education as well as early marriage of child (Mohan and Pandey, 2004), additional income generation (Sekhar et al., 2008), scattered houses, distance from home, lack of proper transport facilities, keeping girls busy in agriculture, sending girls for cattle grazing (Shah, et al., 2006), domestic work (Misra and Baraj, 2008; Sudhir, 2003) sibling care (Kristian and Gupta, 2006; Shekhar et al., 2008), social conventions (Lochan, 2007) and lack of educational facilities at home (Mohan and Pandey, 2004). There are also family factors including broken families, lack of parental interest and migration (Soni, 2005), discouragement by parents (Sudhir, 2003) compulsion of staying in slums (Duraisamy, 2006) and inadequate use of facilities, (Chakraborty and Khanna, 2008). Migration of the family (Soni, 2005 and Sudhir, 2003) has also been found to be a contributing factor of dropout.

Health related factors covering handicaps (Kristian and Gupta, 2006; Soni, 2005; Sudhir, 2003), illness of children (Mohan and Pandey, 2004; Kristian and Gupta, 2006), lack of health facilities (Shah et al., 2006) and malnutition (Sarkar and Baruah, 2008) had also been found to contribute for drop out of children. Lack of parental interest (Soni, 2005) and personal interest (DRS and RESU-TSG 2009; Misra and Baraj, 2008) were also found to contribute for drop out.

Further, there were school related factors also which was responsible for drop out of children. Children felt it difficult to understand textbook language (Shah et al., 2006), basic facilities not being available in schools (Lochan, 2007; Patel and Bhatnagar, 2006), unhealthy school environment (Sudhir, 2003), apart from other factors, such as single teacher schools, lack of quality teaching, teachers' involvement with other non academic assignments, and poor condition of the school buildings (Lochan, 2007). All the above factors were found responsible for school dropout.

Out-of-school Education

Out-of-school education in the Indian context is quite a mosaic. Different States have their own determinants and definitions even though, it is understood alike by all in the country. Different States have different criteria to consider students as out-of-school. It even keeps on changing within a State too.

In a national level study on out-of-school children covering almost all States and UTs, it was found that the percentage of out–of-school children was relatively higher among those in the age group 11–13 years (5.23 per cent) compared to those in the age group 6–10 years (3.69 per cent). Percentages of out-of-school boys and girls in the age group 6–10 years were 3.40 per cent and 4.04 per cent, respectively. For the age group 11–13 years, the percentage of out-of-school children was relatively higher among girls (5.79 per cent) than boys (4.77 per cent). Among the different social groups, the estimated percentage of out-of-school children was 7.67 per cent for Muslims, 5.60 per cent for STs, 5.96 per cent for SCs, 2.67 per cent for OBC and others. The survey revealed that estimated 2,897,096 children in the age group 6–13 (i.e., 1.52 per cent of the total number of children in the age group 6–13) were physically or mentally challenged. Of these, 38 per cent suffered from orthopedic disability whereas, the

percentage of children suffering from hearing, speech, visual, mental, and multiple disabilities was 7.72 per cent, 13.05 per cent, 13.29 per cent, 17.95 per cent, 9.75 per cent respectively. Out of the total physically or mentally challenged children, 9,88,359 (34.12 per cent) were out-of-school. Analysis by different types of disability showed that 58.57 per cent children with multiple disabilities were out-of-school followed by those with mental disability (48.03 per cent) and speech disability (36.96 per cent). Among those with visual disability 29.7 per cent were out-of-school. At the national level, among the children who were out-of-school, 74.89 per cent were those who never went to school and 25.11 per cent were these who had dropped out from school after one or more years of schooling. Among the out-of-school children in the age group 6–10 years, the percentage of dropout was 26.61 per cent. Among the dropouts, the highest percentage was of those who dropped out after completing Class II and Class III i.e., 19.64 per cent and 19.55 per cent respectively. Next was the percentage of those who dropped out after Class V which was 19.17 per cent. There was considerable decrease in the proportion of out-of school children over the last 3 years. The percentage of out-of-school children was 4.28 per cent in 2009 compared to 6.94 per cent in 2006 survey. This decrease was higher in rural areas (4.53 per cent in 2009 from 7.8 per cent in 2006) than in urban areas (3.18 per cent compared to 4.34 per cent in 2006). In terms of age and gender, the decrease was nearly same 3.71 per cent from 6.1 per cent in 2006 for age group 6–10 and to 5.23 per cent from 8.56 per cent in 2006 for male children and 4.64 per cent in 2006 for female children. Among the different social groups, the decrease was highest in case of ST children (5.6 per cent from 9.54 per cent), OBC and others (2.67 per cent from 5.55 per cent in 2006), SC (5.96 per cent from 8.17 per cent) and Muslim children (7.67 per cent from 9.97 per cent)(Social and Rural Research Institute IMRB International and RESU, 2009).

In another study on 13 districts of Uttarakhand, it was found that about 6 per cent children were out-of-school of these, 3 per cent belonged to 6–10 years age group and 3.2 per cent were in the age group 11–14 years. Overall there was no difference by sex with regard to children being out-of-school in any of the two age groups. High illiteracy rate, floating population and high percentage of parents who were unskilled workers were cited as some of the causes of children being out-of-school (Sharma, 2007).

A study of out-of-school children of migratory families in Gujarat found that 50 per cent of VEC members reported that teachers were interested in bringing the migrated children back to school. Around 83 per cent head teachers felt that facilities of school uniform, textbooks, scholarships etc. are necessary incentives to bring the migrated children back to school. There was a need to inform students or guardians about migration card. Nearly, half of them perceived the problem of migration as an obstacle to school and classroom teaching. Around 85 per cent of the class teachers were in favour of providing uniforms or textbooks or scholarships to children from migrated families. As per teachers' views, children of the migrated families affected the results. Problem of frequent absence and understanding of the language was also reported by nearly two-third of the teachers. Guardians attributed their children dropping out-of-school mid way to migration, enjoying their childhood and lack of optional scheme for the child's education. Majority of children were not going to school at migrated place, though they got sufficient opportunity to study at the place of migration. They were not comfortable at the migrated place and did not get proper support from the teachers of the school at the migrated place (Gohil et al., 2006).

In another study on the migration of students in Rajasthan it was found that the percentage of migrants out of total enrolled students ranged between 1.12 per cent to 5.07 per cent. The reasons for migration were poor economic condition, small size of agricultural land, large family size, lack of education among parents, lack of interest in studies and low quality of education in schools. The agencies and persons responsible for migration of children were parents, contractors, relatives, other labourers of village, employers and friends (Arora and Pandey, 2008).

On the issue of retention and dropout, researchers have studied facilitators and impeders. Eventually, it is each schools' responsibility to retain children and arrest dropouts. Since schools have failed to retain and to arrest dropout, State at the top and the community at the local level have to take the responsibility for not being able to sufficiently support the school in achieving its objectives of retention and dropout. There is a need to study the State policies, the loopholes in the policy implementation, in its monitoring and supervision as well as its inability to make policies achievable. Studies which can throw light on the States' role perhaps would be useful. At the same time, the role of the

community, the SDMCs and SMCs need to be studied in depth. This issue could be taken at using community-based collaborative action research by the sub-district functionaries of the education department in order to ensure that the system is able to function better. Independent researchers probably would only be able to provide facts and figures but they may not be able to bring about systemic changes. Therefore, these concerns are to be undertaken with education departments through community-based action researches.

Since the research trends indicate that a large chunk of disabled children contribute for out-of-school pool in spite of the fact that the home-based education has been able to cover even the severely disabled children, it becomes important for researchers to study in depth as to what is happening in the home-based educational settings. Apart from that there are more researches required in understanding the disabled children who are out-of-school and to enroll them to the nearby schools.

Teaching and Learning Process

Teaching and learning constitute the crux of school education. There are different concerns related to teaching and learning on which researches have been conducted. Included among them are: remedial education, teaching and learning process for CWSN and teaching, learning and evaluation. They are discussed as follows.

Teaching and Learning Process

Teaching learning process is the heart of any education programme. To bring out change in the teaching-learning process from memorisation to competency building, NCERT (2017) brought out a document, *Learning Outcomes at Elementary School Stage* for Classes I to VIII across different subjects. In addition to the learning outcomes, the pedagogical processes required for achieving learning outcomes have also been enumerated.

Studies have been conducted on different aspects of teaching-learning process. In a study conducted by Bhatta and Bora (2009), it was found that in most of the schools, teaching learning aids were being used viz. thematic activity book, songs, rhymes and games book, TLM kit box, drawing and coloring book, crayons, pencil and eraser, play material. Beginners English, and Karmaputhi. Teaching learning process was activity-based in schools supported by Ka-sreni and schools supported by ka-sreni

workers (Bhatta, and Bora, 2009). Activity-based teaching learning process was observed in two thirds of the centers where CRCCs and BRCCs provided support on content, lesson planning and activity development (Nayak, 2006). Studying the effectiveness of use of computers in teaching learning, it was found that many teachers were developing teaching learning materials, lesson plans etc by using computers. Computer as a teaching tool minimised the task of most of the teachers as it became easier to explain the subject matter through visualisation and practice (Das, 2008). Assessing the impact of CLIP I and II programmes, it was found that teachers spoke fluently, their voice was clear and audible and they maintained eye contact while, teaching or speaking to children. A sense of competition was evident among teachers to make their class best in the school by upgrading students' class performance and cleanliness (Devi et al., 2006), and in almost all the subjects, the home assignments were a repetition of the class work done and without any enrichment indicating that the purpose and importance is not clear to the teachers (Bhatia, 2014).

Inclusive Concerns in Teaching and Learning Process

There are studies exclusively on the teaching-learning process for CWSN children. Banerjee and Mehandale (2006) found that the resource teachers under IEDC scheme felt that educating a challenged child with normal school children would provide opportunities to such children to develop an awareness of their abilities rather than their disabilities. A number of initiatives were undertaken to promote inclusive education such as creating awareness in society regarding the education of the disabled children, providing solutions for problems arising in the classroom, encouraging the children with disabilities to achieve their maximum, organising training programmes for parents and teachers of children with disabilities, conducting different programmes and cultural activities to draw the attention of the members of community towards the problem of children with disabilities, encouraging various organisations and NGOs to provide help to the children with special needs (Verma, 2004). Integrated Education of the Disabled helped in improving the attendance of CWSN in schools, facilitated their progress and participation in curricular and co-curricular activities, developed positive attitude among general teachers and non-disabled children, improved

their personal, social and academic skills, self-esteem of children with disabilities and reduced the dropout rate (Verma, 2002). Different programmes organised for the education of children with special needs included identification of such children through home-to-home enumeration work, faculty of scholarships and medical assistance, organisation of medical camps, providings training to teachers as IED teachers and organisation of awareness programmes for the classroom teachers, parents and public (Venkatesh, 2006). Studying the training on how to deal with CWSN, some teachers said that they used TLM according to the topic and disability of the child. Training increased the positive attitude towards CWSN, a small segment of teachers even prepared Individualised Education Plans (IEPs) for CWSN or provided remedial teaching to CWSNs. IED intervention was found to improve their children to some extent. But very few felt that intervention had any great impact on the personality and behavior of CWSN (Das, 2007). The Resource teachers (RTs) and volunteers provided home-based education and counseled parents, and around half of the parents felt that their CWSN were treated like other children and were satisfied with resource support (Choudhury et al., 2008).

Insufficient infrastructure, level of disability of CWSN and lack of parent's cooperation were some of the major problems faced in implementation of IED intervention (Das, 2007) in Assam. Nearly half of the population of CWSN was still not in any school and there were a number of obstacles faced by the local governments in educating children with disabilities in mainstream schools (Julka, 2005). The resource teachers for inclusive education and regular teachers were of the view that integrating children with special needs in regular schools makes it difficult for teachers and quite a few of them were of the opinion that education of such children should be in special schools or home-based (Banerjee and Mehandale 2006). A majority of teachers did not adapt instructions frequently in the classroom to meet the special needs of the children and most of the teachers prefered to use lecture method for teaching. The teachers' lack of knowledge and their empowerment were the reasons for making no adaptations (Julka, 2005). A majority of the children were not satisfied with the aids and appliances supplied to them and teachers' attitude towards students needed improvement (Choudhury et al., 2008). There was non-cooperation among government officials in the implementation of inclusive education under SSA. It may be due to the lack of

understanding of scheme by educational administrators, lack of awareness, attention and attitude of government officials (Dubey and Pandey, 2012). In the context of making teacher education programme more meaningful, Julka (2003) proposed that there is a need to revise the existing teacher education course contents in order to prepare the teachers to respond to diversities in the classroom. There is an overwhelming need for all teacher education institutions including DIETs to orient teachers to the issues of inclusive education, teaching approaches and styles.

Remedial Education

Remedial education programme Balsakhi in Vadodra for children in Classes III and IV was found to be very effective by way of increasing average test scores using Computer Assisted Learning (CAL) programme (Banerje et al., 2004). In a Remedial Teaching Programme (RTP), it was found that most of the teachers were using specified curriculum while, a small segment of teachers were not following the curriculum. Relatively, more female teachers were conducting RTP compared to male teachers. A large number of teachers used innovative methods while, teaching the students (Joshi, 2007). In a national level study, it was found that in a couple of states like J and K and Chhattisgarh remedial teaching and student evaluation for learning outcomes was carried out at block and cluster levels to raise the learning capacity of girls. Remedial teaching and private tuitions were fairly common as parents and girls were eager to do well in examination once they were in school (Gender Unit, TSG-SSA, 2008).

Teaching, Learning and Evaluation

Evaluation is an integral part of teaching-learning. There are studies concerning this issue as well. Studying the education scenario at local levels, it was found that teachers usually taught more than two subjects. A large majority prepared lesson plans before teaching. Around half of them used dictionaries but reference books were used by very few. About half of the teachers used charts, globe and maps as teaching aids (Lynoo et al., 2006). Schools have become regular and the presence of teachers in the schools has improved teaching learning transactions are predominantly activity-based and prone to question-answer sessions, students ask questions and students' participate especially, those from the category of SC and

girl students had improved in visible ways. Over all, a salutary effect was perceptible in most of the districts (Pandey, 2005).

In a classroom process study it was found that there was a perceptible paradigm shift from teacher-centered to learner-centered method. Children were active in all the activity-based learning classrooms. Improvement was observed in childrens'reading, writing, narrating and other cognitive domains including numerical skills. Seating arrangement increased children's access to teachers whereas, learning in groups increased childrens curiosity and socialisation, tendency to help peers, self-esteem, and involvement in learning process and subsequent learning, personal hygiene and order in the classrooms as well as the overall mental health (Prema, 2009). Studying the teachers' activities in the class, it was found that on an average, 29 per cent of the teachers' time in classroom was being spent on student-centric activities (RESU, TSG-SSA, 2008). A large majority of teachers found that effective use of TLMs in teaching learning process have benefited students in getting their concepts clear to a great extent (Pandey et al., 2008). In a comparative study of ADEPTS and non-ADEPTS schools it was found that relatively more students' portfolios were prepared and updated in ADEPTS schools than in non-ADEPTS schools. Reading corner was also more accessible to children; ADEPTS' teachers were also more conscious of the desirable practices and also willing to put an extra effort required (SARED, 2009). Studying the effectiveness of new assessment scheme, it was found that teachers' work increased at the initiation of scheme but it came down to an acceptable level once, they understood the intricacies of the scheme. The scheme improved systematic observation, recording and reporting of students' performance in scholastic and co scholastic areas. Teachers used variety of techniques for assessment of students' performance. Students learned about peer-assessment and self-assessment techniques. Diagnostic testing and remedial instructions were found effective in improving students' performance. Students' performance improved steadily in co-curricular activities (Rajput, et al., 2003).

In the context of Meghalaya, it was found that almost half of the teachers were untrained and had not received any kind of in-service training during the last five years. The teachers were sincere and regular and a majority of them came to classrooms well prepared with new materials, new teaching methods and

had good rapport with their students (Momin et al., 2006). Shah and Chaudhari (2006) reported that girls liked going to school, enjoyed studying in the class, helped one another in learning in the classroom and were of the view that teachers were taking interest in their education, their teachers taught them with the help of pictures and charts and used play-way method. Most of them liked to play games regularly in the school and did not hesitate to play games with boys. On the multi-grade teaching learning context, it was found that a large majority of respondents were in favour of using teaching learning material in multi-grade teaching. Nearly, one third of the respondents said that their first priority was to 'make use of group system' in multi-grade education in order to increase students' participation and suggested that use of more teaching learning material would increase students' interest. According to BRCs, training for teaching in multi-grade was essential because multi-grade classes are unavoidable. Multi-grade training had some effect on class-room interaction (Malav, 2006).

Distribution of free textbooks also contributed positively towards enhancing the school enrolment, retention and quality education (Sarkar, 2008). TLMs were found in a majority of the schools and library books were also available. Teachers spent grant either for TLM only or for purchase of stationary articles for students. The use of TLM varied from district to district. A majority of teachers maintained records and felt that the amount of grant was adequate (Yadav, 2004).

Studying the levels of scholastic achievement of rural elementary school children, Uma et al., (2006) found that classroom teaching practices were significantly and positively related to academic skills. Major determinants of academic skills were classroom teaching practices, teachers' attitude towards teaching, classroom quality, parental education and mother's income. Major determinants for scholastic competencies were classroom teaching practices, school infrastructure, teachers' efficiency and attitude, father's occupation and childrens attendance. Studying the use of cooperative teaching strategies, Verma (2005) found that self-learning methods made students responsible for their own learning as well as for the learning of their peers. Working in small groups made each child to participate and enhance her or his self-confidence. Peer tutoring was successful in language teaching. Keeping flexible

pace, providing varied material and giving alternative assignments helped children to learn.

Studying the effectiveness of hands-on activities in science, in enhancing the teaching skills of elementary school teachers in Delhi, it was found that all the teachers found these activities interesting, innovative and helpful in inculcating scientific attitude among the learners. They also felt that it is possible to organise activities without lab material or equipment. These activities were found useful in enhancing science teaching skills (Singh, 2008) and experiential learning was found helpful in enhancing awareness of pupils regarding a particular subject and also to build their actual beliefs by real hands-on-experiences (Mehra and Kaur, 2010).

Comparing the government and private schools and teachers, it was found that average attendance of students in private school had an edge over government schools. However, all government schools teachers were trained and underwent in-service training whereas, in private schools one-third was untrained and no in-service training was provided for them. Yet, private schools attracted more parents due to good and motivated teachers, better teaching quality, punctuality and discipline, school environment, infrastructure and facilities, practice of giving homework regularly and periodic tests. Whereas, government schools attracted parents due to free education, books, study material, mid-day meals, qualified or good teachers and teaching quality. Perhaps, this is a true picture that one could see in urban pockets throughout (Mehta et al., 2007).

Problems in Teaching-Learning Process

Effective teaching and learning process is the goal of school education. In this process, there are many problems and impediments. Naseema (2008) found that teaching learning process in Classes V to VII lacked effectiveness, poor participation of students in classroom activities and ambiguity in the process of Continuous and Comprehensive Evaluation (CCE). Teaching learning materials were not used effectively by teachers and they mostly taught through textbooks instead of demonstration in teaching science. Curriculum transaction was limited to 'completing textbooks' using lecture method. Textbook was the only teaching aid for most of the teachers and they were unaware of different tools and techniques of evaluation and remedial teaching was

not undertaken (Warjri et al., 2006). The problems faced during answer-script evaluations included illegible handwriting of the students, lack of time, no provision of detaining weak students and lack of training and guidelines (Hazarika, 2009).

In terms of the effectiveness of the system it was found that teacher's skills in curriculum transaction through competency-based and child-centered method needed to improve. Teachers' motivation level was low and in- service training was not effective. There was lack of school supervision, head-teachers' were ignorant about school management skills and there was lack of commitment (Mahanta and Barua, 2008). The attitude of most of the teachers was apathetic and gender sensitivity was not evident in teachers' behaviour at class level (Oza, 2006). Studying the 'Meena Manches', it was found that a majority of upper primary schools exhibited no interest in preparing charts to promote regular attendance of girls in schools (Pandey, 2008), the use of TLMs during teaching-learning processes was not found to be very encouraging (Pandey et al., 2008). The records of delivery of textbooks were not available at school, block or district level and the use of workbooks in the class needed to be improved (Sarkar, 2008).

The absence rate of teachers was found to be 22 per cent with district wise variations. The overall percentage of teaching days lost due to teachers remaining absent from school was 13.6 per cent and teachers' in-service training during working days was one of the reason for it (Sharma and Phull, 2009). The absence rate was higher amongst male teachers in comparison to female teachers and the major causes of absence were authorised leave, deputation, non-academic duties, training or meetings, etc. (Singh, 2009).

In another context, it was found that the awareness of needs and problems of teachers in government schools was more than their counterparts in private schools (Shastri, 2006). While the training needs of teachers belonging to rural areas were found to be higher in different areas, their difficulties in teaching were higher and teaching aptitude was low, as was their efficiency in class management, control and discipline apart from their lack of efficiency in using black board and teaching aids and poor classroom interaction while, teaching (Shukla, 2003).

Studying the disabled children and their facilities, Soni (2003) found that special facilities for disabled children were non existent in schools. Parents, teachers and disabled students were not aware of the provisions of facilities for disabled children under SSA.

In another study, Soni (2005) found that there were no special teachers to help children with disabilities in any of the states. Some orientation to inclusive education has been given which did not meet the specific needs of different categories of disabled children.

Dogra's (2013) study on the challenges and issues involved in teaching EVS at primary stage found that the purpose of teaching EVS was not realised in most of the classrooms. Most of the activities were either conducted by the EVS teachers or conducted by students in groups. There were hardly any individual activities where, they themselves can perform experiments. Time constraints, lack of space, difficulty in handling apparatus and indiscipline were mentioned as problems faced by most of the EVS teachers in organising activities.

It is thus, evident that inclusive concerns are gaining more attention. But, paradoxically inclusion is getting restricted to the issues of either disadvantaged or more of the disabled children. The CWSN ideally covers the entire bandwidth, covering not only the socially disadvantaged or the disabled but also the creative children, the talented children and the gifted children. The educational functionaries at the sub-district level need to be sufficiently oriented about providing learning opportunities for the children who are creative, talented and gifted. More and more researches are necessary in understanding what is happening to the needs of these children. Teaching-learning process is also taking place differently at different places, which is obvious. There is a need for a large number of researches on the teaching and learning process. These researches need to focus on the classroom processes in relation to the presage and the product variables. Studies need to focus not only on the health of teaching-learning processes but also on the effectiveness of different interventions which can work in different contexts and should be shared with the practitioners that they are doable interventions. Hitherto, researchers are concerned about conducting research and then publishing their findings elsewhere. Research and practice are disjointed activities. They need to be integrated.

Learning Achievement

Studies indicate various issues related to learning achievements. It was found in a study that, there was an improvement in mathematics achievement from MAS to TAS in Bhiwani and Mohindergarh districts while, there was a loss in Gurgaon

(Arora et al., 2002). Overall, there was a consistent increase in mean achievement scores for both subjects in Classes I and IV in Terminal Achievement Survey (TAS) over Baseline Achievement Survey (BAS) and Mid-Achievement Survey (MAS), and SC students did better than ST students especially in mathematics (Datamation, 2006) and consistent improvement in the mean percentage of marks in language and mathematics (Jayalakshmi et al., 2003). Achievement levels of the learners in Classes II and V showed an increase in both classes and both subjects during TAS as compared to that in BAS and MAS (SIERT, 2006). Similar trends were seen in other researches as well (Singh et al., 2008; Singh and Pandey, 2006; ORG Centre for Social Research, 2006; Pandey and Tripathi, 2008). A significant reduction in gaps in achievement level of students from different social groups and different areas (rural, urban and tribal) was found by Rao (2005). The performance of Class III students was much lower than that of Class I both in language and mathematics. Urban schools had better facilities, provided better education and showed higher achievement of students (ORG Center for Social Research, 2006).

Correlates of Academic Achievement

Researchers have attempted to study different variables which have positive and negative correlates on academic achievement. Different variables which have been found to have a positive correlation with academic achievement include socio-economic status and self-consciousness (Bhuwal, 2003), mode of light available in the house, availability of *Anganwadi* centers in the village and enrolment of children in the center (SCERT, 2005). Age wise analysis showed that there was an improvement in performance by age. Within the same class, the older children acquired more competencies than the younger children (Research and Documentation Team, 2004). Girls performed better than boys in Tamil, English and Mathematics and students of Class V from private aided schools performed better than the pupils from Government and Adi Dravida Welfare schools thus, highlighting the role of gender and school managements (State Project Directorate, 2006). The achievement scores of girls in Kasturba Gandhi Balika Vidyalaya (KGBV) (total as well as in terms of their social categorisation) was significantly higher than those of the girls of Parishadiya upper primary schools in all the three subjects i.e., languages, mathematics and social sciences (Shukla and Sanyal, 2008). Computer education increased

students' interest in education, their attendance, retention, achievement level, confidence and creativity (Das, 2008), higher attendance rate of children (Kumar and Gupta, 2006), attendance of the students (Majumdar and Raychudhuri, 2012), interesting teaching learning through proper use of variety of teaching aids and supplementary learning material, good learning environment, better communication skills and command on medium of instruction and subject matter (Kishore and Kulhari, 2008). Variables such as student having attended pre-primary classes, teacher regularity, monthly assessment, reading newspaper or magazines and other motivating reading material had positive impact on students' achievement (ORG Centre for Social Research, 2006), school management, careful planning for transition from home language to school language (Kushwaha, 2012), improvement in the teaching methodology (Verma, 2007) etc. Contribution to mathematics achievement was statistically significant and substantial in case of student-centric activity (Assam), supportive instructional (Odisha) and class management (Assam and Karnataka), time spent on these activities contributed to increase in test scores (RESU, TSG-SSA 2008). CLIP (Children Language Improvement Programme) facilitated teachers in shouldering more responsibility in improving the competency level of students (Reddy and Rao, 2006). Children from EGS completed their elementary education better than other learners in schools (Sarkar and Baruah, 2008), teacher's teaching hours, regularity of staff and staff in position was more decisive for achievement levels (Upadhyay, 2003). Private schools had an edge over government schools in teacher-student interaction, overall classroom process, and co-curricular activities (Mehta et al., 2007). Computer education increased students' achievement level (Das, 2008) and Children attendance and class room teaching practices (Uma et al. 2006).

While different factors and variables, which correlated negatively included, mothers working outside home (SCERT, 2005), non usage of teaching learning aids, minimum interaction between parents and teachers, lack of academic support by family to students, irregularity of students apart from health problems, lack of motivation to students, lack of interest in using new teaching skills and no academic support from higher authorities. Achievement levels of learners were found to be low especially in mathematics due to the weak horizontal and vertical

links amongst local level institutions (Sangai et al., 2002; Sangai, 2004). The difference between home language and medium of instruction, educational level and occupation of parents had no impact on students' achievement (ORG Centre for Social Research, 2006).

Learning Achievement of Socially Disadvantaged

The learning achievement among socially disadvantaged is an important area of research. It was found that at Class II level, language learning was lesser than learning mathematics. Juanga boys' achievement in language was lower than Juanga girls both at Classes II and V while, there was no difference between boys and girls achievement in mathematics in Class II girls. Achievement in mathematics was better than boys' in Class V. Achievement of Saora children in Class II was less compared to Santhalchildren in Odiya language. Achievement of Saora girls in language was higher to that of boys in Classes II and V (Director, IMS 2007). At the national level, boys' achievement in Mathematics was higher than that of girls in Class V. The over all achievement variation in language and mathematics of Class V of the socially disadvantaged students was relatively low (DEME, NCERT, 2002). It was found that achievement variation in mathematics was marginal among rural students and SC students. Further, achievement of SC and OBC children improved significantly (more than 5 per cent) during round II. Maximum improvement was observed in social science and mathematics and minimum in language (DEME, NCERT, 2004, 2008). It was found that the achievement of tribal living in the Northern region was poor in comparison to the tribal's of Southern region (Padhi, 2006).

At the national level DEME of NCERT (2006) found that there was an overall enhancement in physical, instructional and ancillary facilities from BAS to MAS. Systemic Quality Index (SQI) a composite index of school and teacher related indicators having impact on health of school education and outputs like students learning achievement revealed that Pondicherry, Goa, Sikkim, Andaman and Nicobar, Daman and Diu had high resource but low achievement. Delhi, Kerala, Haryana, Chandigarh, Maharashtra, Dadra and Nagar Haveli had high resource but medium achievement. West Bengal, Karnataka, Gujarat had medium resource but high achievement. Meghalaya, Nagaland, Arunanchala, J and K, Assam, Manipur and Mizoram had low resources and low achievement.

In another study, DEME (2008) reported that the achievement of SC and OBC children improved significantly (more than 5 per cent) during round II. In language achievement, Madhya Pradesh, Gujarat, Tamil Nadu and Kerala improved significantly and appreciably. In Mathematics achievement, Sikkim, Uttarakhand, Tamil Nadu, Madhya Pradesh and Kerala improved significantly and appreciably. It was observed that the average achievement of children of Class VII increased significantly among in all groups and in subjects. Maximum improvement was observed in Social Science and Mathematics (9 to 10 per cent) and minimum in language.

Evaluation Studies Concerning Learning Achievement

Different studies have attempted to evaluate the effect of certain processes on learning achievement. Academic performance of learners improved gradually with promotion to upper classes (Sarkar and Baruah, 2007), interactive and participatory method of learning along with group learning and self-learning adopted in EGS, the practices of identification of weak students, grouping them and assigning the task of improving their learning levels to a specific level, teacher providing help and guidance provided at night in study camps by the community member and teachers and Integrated Education of the Disabled (IED) (Verma, 2002) and innovative multimedia programme (CAL Team and Singh, 2007).

Learning achievements are indeed important concerns of educational researchers. Most of the studies fall into the category of finding the relationships between different variables as correlates of academic achievement. Studies which focus on the predictions, understanding the cause-effect relationships would be more useful. Undertaking meta-analysis of studies would perhaps contribute to much better purpose than merely correlations. Most of the findings seen are also amenable to common sense acceptance. Perhaps, dwelling deeper into the learning processes leading to learning achievements would be more useful.

Education of the Socially Disadvantaged

The socially disadvantaged learners include the children belonging to the Scheduled Castes, Scheduled Tribes, minorities, girls, rural children and others. These are the children who suffer certain disadvantages socially. Consequently, only a few will be able to achieve success on par with children from other social categories.

This area therefore has a special place in educational discourse. There are researches particularly carried out on these groups of learners.

Scheduled Castes and Scheduled Tribes Learners

In a study it was found that there was an increase in achievement levels of all social categories (SIERT, 2006). In another study, it was found that under SSA the major incentives given to children in primary and upper primary schools included scholarship, mid-day meal, uniform and cycles. However, textbooks were rated as the best incentive scheme (Srivastava et al., 2008). However, there are certain studies which have found the conditions to be not so good too. In a study it was found that enrolment of SC/ST girls was low in schools. Nearly half of the sampled schools had 60 per cent to 90 per cent enrolment of SC/ ST girls. Low enrolment was due to the childrens involvement in domestic work, large family size and economical backwardness, lack of awareness about the benefits of education, migration, and social customs, such as polygamy and under-age marriages. Scattered houses, distance from school, obstacles, lack of proper transport facility, lack of health facility, keeping girls busy in agriculture, sending girls for cattle grazing and taking care of younger siblings were the main reasons for girls dropping out from school. Teachers' non-teaching activities, their transfers, home not being in the village and lack of female teachers in the school also resulted in low enrolment of girls. Students' difficulty in understanding textbook language, lack of interest in mathematics and deployment of teachers from other areas who faced difficulty in teaching in local language were the factors responsible for dropping out of girls from school (Shah et al., 2006).

In another study, it was found that even though SC/ST children were provided equal opportunities, diagnostic assessment and remedial teaching were not carried out in a systematic way effectively. The status of community mobilisation that motivated parents to utilise the available opportunities for education of their children needs improvement (Srivastava et al., 2008)

Education of Girl Children

Education of girls has attracted the attention of researchers. The National Programme for Education of Girls at Elementary

Education (NPEGEL) and Kasturba Gandhi Balika Vidyalaya (KGBV) are the two interventions used under SSA for the promotion of education of girls in the country. There are few studies related to these programmes.

A study conducted to assess the impact and outcomes of NPEGEL in terms of girls participation, regular attendance and learning levels in Gujarat found that 67 per cent girls liked going to school, 72.5 per cent enjoyed studying in the class, 77 per cent helped one another in learning in the classroom and 63.1 per cent were of the view that teachers were taking interest in their education (Chaudhari, 2006). In Odisha, a study was conducted to assess the impact of incentives and interventions under NPEGEL and found that evaluation was done by conducting unit tests, half yearly tests and annual tests. Oral and written tests were conducted for 'remedial' students under NPEGEL. Further, 76.4 per cent of sampled girl students made the teachers aware of their problems and only 5.3 per cent took help of class fellows. Girls' participation in games and sports was higher than in literary activities as well as in song and dance competitions. Story books, textbooks, books on general knowledge and sports equipment were used by girl students to increase their competency level (Mishra, 2007).

The NPEGEL and non-NPEGEL blocks in Haryana concerning the education of girls were compared and it was found that in upper primary classes there was an increase in enrolment. For SC category, the increase was 13.4 per cent and for backward category 9.1 per cent. Overall increase being 5 per cent. In non NPEGEL blocks the enrolment decreased by 7 per cent (overall) at primary level. No difference was observed in enrolment at upper primary level from 2002–03 to 2005–06. However, 11.5 per cent increase in enrolment was observed for SC and 8.8 per cent for OBC. Overall dropout rate was observed to be higher in NPEGEL blocks at primary and upper primary levels. However, the retention rate of girls from backward classes (OBC) decreased from 92.4 per cent to 77.8 per cent in NPEGEL blocks and from 86.7 per cent to 83.4 per cent in non-NPEGEL blocks at primary level. This could be due to increase in retention rate of SC girls in non-NPEGEL blocks. Lateral entry of girls from other schools was responsible for retention rate being above 100 per cent.

Kumari and Kumar (2009) found that the benefits of NPEGEL scheme was not reaching the prime target groups, i.e., SC/ST,

minority girl children and out-of-school girls in Jharkhand. Girls from formal schools received its benefits. Lack of good trainers was a problem in rural areas. Irregular flow of funds further de-motivated trainers to continue working and caused problems for ground level implementers.

In a national level study on the evaluation of NPEGEL, it was found that the basic purpose of this scheme did not meet in thestates. While, the infrastructure may be there, the usage for the purpose was often not proper. While, a range of materials was available in the Model Cluster School, their usage varied. Sewing machines were the most common equipment available. There was no specific curriculum for vocational courses. Girls learnt little bit from a variety of activities (painting, papermache, karate etc.) but competencies developed were insufficient. Part-time instructors employed for vocational courses or hobbies themselves needed professional training. Under the NPEGEL scheme, sports events, symposiums, debates and cultural programmes were carried out at zone, district, block and even cluster levels in 3–4 states. These competitions instilled a sense of achievement and confidence in the girls. Provision of cycles was quite popular and (like in Tripura and Chhattisgarh) it was targeted towards girls who live more than 2 to 3 km away. In a couple of states, like Jammu and Kashmir and Chhattisgarh remedial teaching and student evaluation for learning outcomes was carried out at block and cluster levels to raise the learning capacity of girls. Remedial teaching and private tuitions were fairly common as parents and girls were eager to do well in examinations once, they are in school. None of the states had the SSA state offices established any formal linkages with open schools perhaps because of a lack of vision. This is a major lacuna in the scheme which needs to be addressed by all states so that the efforts of the scheme may not go in vain (Gender Unit, TSG-SSA 2008).

The monitoring reports of Regional Institute of Education, Mysuru in Karnataka context on the issue of NPEGEL programme found some of the effective and non-effective elements of NPEGEL. There were a lot of initiatives to enroll and retain girl children through *meenamanch* activities (Murthy, 2012b; Somashekhar, 2015b). Girls participated well in all activities curricular as well as co-curricular (Kamath, 2011a; 2011b; 2012a; 2012b; Murthy, 2011a; 2011b; 2012a; 2012b; 2015a; Somashekhar, 2015b). Classrooms were non discriminatory (Murthy, 2011a; 2011b;

Somashekhar, 2011; 2012a; 2012b). The Government of Karnataka had introduced *Bhagya Lakshmi* scheme, which provides ₹2 per day to girl children if they attended school. This will go to their account. This is attendance scholarship (Murthy, 2015a). None of the girl children had any prolonged absenteeism (Murthy, 2012b). All boys and girls passed final year examination (Kamath, 2011a, 2011b, 2012a, Murthy, 2011b, 2012b, 2015a, Somashekhar, 2015b). There were separate washrooms for girls (Murthy, 2011a; 2012a; Somashekhar, 2012a; 2012b). A large majority of teachers and parents attended the gender sensitisation programme (Kamath, 2011a; Murthy, 2011a; 2011b; Somashekhar, 2011; 2012a; 2012b). Emergency medical kits were available in schools (Murthy, 2011a). SDMCs were active in community awareness programmes, (Murthy, 2011a).

An analysis of the above studies indicates that though, NPEGEL was conceived well at the national level, the implementation has varied and consequently paradoxically, it has lent itself to a mixed result.

The next important intervention on girls' education has been Kasturba Gandhi Balika Vidyalayas (KGBVs). There are certain studies undertaken on KGBVs which are as follows. Mandal (2007) studied the contribution of KGBV on SC/ST girl's education and found that around 70 per cent of the KGBVs had four teachers while around 30 per cent had only three teachers. In most of the KGBVs TLMs were available. Science laboratory was available in more than half of the schools. The behaviour of teachers in school was very cordial as reported by the ST students. Large majority of parents were satisfied with the teaching methodology followed in the schools. KGBVs have increased interest of people in rural areas to send their daughters to school.

Gender Unit, TSG-SSA (2007) conducted a National Evaluation of KGBV Scheme and found that it is well received by the community. The fact that the KGBV is 'completely free' is a major attraction. The teachers and all those involved in the management of the KGBVs showed high levels of commitment. Most of the states had high proportion of older girls who had dropped out and never enrolled girls were also admitted in the KGBVs. Across the states, girls in most of the KGBVs had settled down well and were happy and confident. By and large the retention of girls was fairly good in most of the KGBVs visited. Curriculum in many KGBVs was quite enriched. The teachers were not familiar with techniques for accelerated learning. Many of the part-time teachers were young

with lot of potential. Parents wished KGBVs to be extended to class X, which has already been done by Andhra Pradesh.

Mehrotra (2006) studied the functioning and effectiveness of KGBV in Uttar Pradesh and found that all girls expressed their satisfaction with the teaching, infrastructure and other facilities of KGBV. In all the KGBVs, food was served adequately as per the weekly menu. Weak girls got extra classes apart from special attention in the classrooms. Girls were doing well in other activities too such as preparation of handicraft items, singing, dancing and other cultural activities. However, there was no provision of separate head teacher and the warden acted as the head-teacher as well. Games and music teachers were not available in the KGBVs.

There was another set of studies on KGBV, that reflected dissatisfactory functioning of KGBV.. Gender Unit, TSG, SSA (2008) conducted a National Evaluation of KGBV scheme and found that in the 12 states covered, 67.7 per cent of the approved KGBVs were operational. In Meghalaya, management of KGBV was given to a missionary institution where, only catholic girls were being enrolled, which was a violation of the guidelines. In Punjab and West Bengal, these Vidyalayas were being used as hostel facility for girls enrolled in regular schools. Large proportions of girls studying in the KGBVs were already enrolled in school or had just completed Class V. Training given to teachers was inadequate. Teachers were not familiar with techniques for accelerated learning. There was a need to impart training to sensitise functionaries in all the states on gender issues. In depth interaction with the teachers revealed that wardens and teachers needed training to efficiently manage or administer the school, plan for health and nutrition and the importance of hygiene.

On the whole, KGBV is a successful conceptualisation and experiment even though there are some problems bothering the system. Apart from the studies on NPEGEL and KGBV, there are also studies focusing on other aspects of girls' education which are as follows.

Singh et al. (2008) conducted Terminal Assessment Survey (TAS) for DPEP Phase II districts of Rajasthan and found that there has been significant improvement in the performance of students in TAS compared to BAS in Language and Mathematics in Classes II and V. Girls' enrolment increased from 0.9 million in 2001–02 to 1.18 million in 2006–07, an increase of 26 per cent. Gender gap reduced to less than 5 per cent. While, ORG Centre for Social

Research (2006) studied the impact and effectiveness of innovative programmes in girls' education programme in Uttarakhand and found that except remedial teaching programme which was conducted daily, all other programmes ran twice a week. The courses were found effective as well as useful by almost all the girls who attended the particular course. Sports activities and martial arts were observed to be very effective for self-defense by girls as well as their parents. Girls learning these activities found positive changes in their personality and level of confidence. Barring years 2001–02, girls' enrolment in the select upper primary schools was higher than that of boys during last five academic sessions. The proportion of girls' enrolment improved over a period of five years particularly for SC girls. Still there was improvement in the attendance of girls in sampled schools. Girls of higher classes were more regular. Majority of the girls liked the programme to a great extent because of their usefulness for jobs and future. Parents perceived it as useful for their daughters.

There are certain studies which have talked about certain problems bothering girls' education. They are as follows. Oza (2006) studied gender concerns in school activities and classroom practices in primary schools and found that attitude of most of the teachers was apathetic. Gender sensitivity was not evident in teachers' behaviour at class level. In principle, they agreed with the programmes of gender empowerment but its impact was not evident in their practice. In rural areas, students (boys and girls) cleaned the school ground and classroom daily and filled drinking water pots regularly. Students in rural areas were more enthusiastic in curricular and co-curricular activities. Participation of girls in classroom activities was higher in urban areas. In urban areas not much attention was given to prayer or *Prarthna Sabha* whereas, in rural areas, prayer assembly was one of the important activities in school where, both teachers and students were active partners. Here, assembly was considered an important activity to develop initiative, leadership etc.

In another context, Padhi (2006) compared the scholastic achievement of Class IV girl students of residential and non-residential schools and found that the performance of girls in residential schools to be better in Odiya, English, Mathematics and General science. Social study was the only exception in which performance was poor than that of non-residential schools. Inadequate number of teachers, poor infrastructure of the school,

lack of mobilisation of financial resources from the community, lack of parental involvement and teacher absenteeism were the major barriers. In another attempt on different incentives, Soni (2008) studied the special provisions for education of SC children under SSA and found that the scholarship amount of ₹50 per month was given to SC girls only at primary stage. SC children did not receive the full amount of scholarship and they received the amount ranging from ₹90 to ₹500 for 10 months due to administrative lapses. The state government provided bicycles to girls to motivate them for education from SSA funds. Fifty percent of the purchased bicycles were provided to SC girls and rest to girls from general category at upper primary stage on the basis of distance of the school from home. Studying the learning levels of girl children Khare (2007) found that illiteracy, economic status of the parents, social and family reasons along with unhygienic condition of the schools were reported as the reasons for girls not being able to learn in the schools. Yet, attendance of girls increased and their examination results were better than boys. Misra and Baraj (2008) conducted a sample survey of school children in Uttar Pradesh and found that a few households belonging to ST and minority community perceived that education was not necessary for girls and hence, their girl child left education without completing the primary level. While Shah et al. (2006) studied the causes of low enrolment and drop out of SC and ST girls in primary schools and found that enrolment of SC/ST girls was low in schools. Nearly half of the sampled schools had 60 per cent to 90 per cent enrolment of SC/ST girls. Teachers' non-teaching activities, their transfers, home not being in the village and lack of female teachers in the school also resulted in low enrolment of girls.

Research on the socially disadvantaged groups appears to be an area, which needs much more exploration. In spite of the initiatives by the central and state governments, this area still remains unexplored. Some of the concerns studied more by researches include the problems of the children belonging to SC and ST, or girls, covering the KGBVs and the NPEGEL. All other dimensions of social disadvantage have not caught the attention of the researchers. It could include rural, marginalised, urban deprived, children of the incarcerated parents, children belonging to minority communities etc. This could be a potential area for future research.

Availability of Teachers, their Dispositions and Training

Availability of teachers in elementary schools is indeed a concern. Engaging all learners by the teacher is yet another important requirement. ESU, TSG-SSA (2008) conducted a study on teachers' absence in primary and upper primary schools of Andhra Pradesh, Madhya Pradesh and Uttar Pradesh and found that teachers not present in school were 24 per cent in Andhra Pradesh, 15.4 per cent in Madhya Pradesh and 11.0 per cent in Uttar Pradesh. These included 14.9 per cent, 10.6 per cent and 5.4 per cent teachers respectively who were on leave. The percentage of teachers who were absent without any intimation was only in the range of 2.3 per cent to 2.6 per cent among the total teachers. Absence rate of teachers was almost the same for male and female teachers. 'Family problems' and 'health of teacher' as the two main reasons cited for teachers taking leave. 'Residence being far away and 'transport not being available' were also the reasons mentioned by quite a few teachers particularly in Andhra Pradesh. 'Political or social activity' too was given as a reason for teachers being absent sometimes.

In Uttar Pradesh, it was found that teachers in the five sampled districts worked for 225 days on an average. Attendance rate of female teachers was higher than male teachers both in the primary and upper primary schools. Highest number of SC/ST teachers was on leave from school followed by general category teachers (Ahmed, 2008). The percentage of teaching days lost was 16.6 per cent in case of primary schools and 15.85 per cent in case of upper primary schools in Himachal Pradesh. Majority of teachers were present and were teaching. Not a single teacher was found absent without any intimation to the school authorities. The attendance rate of male teachers in primary and upper primary school was 78 per cent and 75 per cent respectively. Attendance rate of female teachers at primary and upper primary school was 83 per cent and 81 per cent, respectively. On an average, 3–5 days were spent by teachers in attending training or meeting. The reasons for teachers' absence were their family problemshealth problems and participation in political or social activities (SIEMAT, 2009). In Karnataka, it was found that the attendance rate of teachers was 78 per cent in government schools and 87 per cent in private aided schools. The three main reasons for teacher absenteeism according to the head of the school were—family problems, involvement in religious functions and festivals and transportation problem (CMS, 2008).

In Kolkata it was found that on an average absent rate of teachers at primary stage was 85 per cent and 81 per cent for upper primary stage. Attendance rate of teachers in rural area was lower than that of teachers in urban area (Karmakar et al., 2008). In another study in Kolkata it was found that teachers' attendance rate was 87.1 per cent on the first day and 90.1 per cent on the second day. Mostly teachers were absent on account of personal work and had submitted the leave application to the head-teachers' well in advance. Nearly 11 per cent teachers were absent on account of teachers training or other official works as entrusted by the school inspector (Salam and Mandal, 2008). In Bhopal it was found that attendance rate of teachers was 90.5 per cent. Nearly 6 per cent teachers were on leave and 1.6 per cent was assigned government duties, 2.1 per cent were away due to non-academic tasks. Personal health and family related problems were the main reasons for teachers' absence (Khare et al., 2007). In Andhra Pradesh it was found that overall attendance of the teachers was found to be 78 per cent at primary stage and 81.5 per cent at upper primary stage. Major reasons for teachers' absence were health problems of self, or family members. Distance from place of residence to schools was also cited as reasons of absence in some cases. Difference in attendance rate of male and female teachers was marginal. On an average teachers spent 9.68 days for training in an academic year out of which, 5.45 days were working days. Teachers reported spending 3.86 hour per week on administrative work. The absence rate was highest among 'tribal 'teachers followed by 'others', Backward Castes and Scheduled Castes (Nagaraju, 2008).

The absence rate of teachers in Jharkhand was 21.6 per cent. The rates in each district, varied. Overall percentage of teaching days lost due to teachers remaining absent from school was 13.6 per cent. Conduction of teachers' inservice training during working days was one of the reason. Health problem(s) of self and family members was the main reason for teachers' absence. Distance from residence to school also emerged as a reason for teachers' absence (Sharma and Phull, 2009). In Punjab, about 82 per cent teachers were present, and of them 66 per cent were found to be taking classes. Reasons for absence included being away for training, being on casual leave or medical leave and being engaged in non-teaching duties out-of-school (Singh, 2009).

There was a slight difference between the absence rate of male and female teachers in Mizoram, but the absence was higher at the upper primary level than lower primary level. Causes of teachers' absence included family problems, teachers' health and participation in festival or religious function. A positive relationship was observed between teachers' presence and students' attendance (Oxi-Zen Research Group, 2008). Teachers' attendance rate was around 79 per cent at elementary level in Bihar. Absence rate was higher amongst male teachers in comparison to female teachers. Major causes of absence were authorised leave, deputation, non-academic duties, training or meetings, etc. Very few teachers were absent without information (Singh, 2009).

Teacher Capacity and Qualities

Teacher capacity and their attributes can inspire students and can also add to the quality in teaching-learning. In a study it was found that the teachers were sincere and regular in their job as per head-teachers and the community members. Most teachers maintained discipline, evaluated home assignments of students, and head-teachers supervised teaching activities of majority of teachers (Momin et al., 2006). On the issue of gender sensitivity of primary school teachers, it was found that nearly, three-fourth of teachers had positive attitude towards gender sensitivity (Patel and Kaswekar, 2006). The other concerns found included the need for time management, covering punctuality, discipline and reporting before school hour and leaving late after school hours by the head teachers (Acharya, 2007).

Teacher capacity and qualities can also affect adversely. Teachers having high level of burnout had an internal locus of control, i.e., they felt responsible for their own success or failure (Poonam, 2014). Mahanta and Barua (2008) found that the existing level of teacher competence and performance was quite inadequate. Instances of pupil participation, use of TLM, group learning, demonstration, activity-based teaching, etc., needed less improvement. Teachers' skills in curriculum transaction through competency based and child-centered method needed to enhance. Teachers' motivation level was low. On the issue of trained and untrained, it was found that 45 per cent of teachers were untrained and 58 per cent of them had not received any kind of in-service training during the last five years (Momin et al., 2006).

Teacher Training

Any teacher training aims at empowering teachers with needed skills and obviously, it must lead to desirable positive effects. Some training programmes also fail. There are number of studies on the effectiveness or impact of teacher training programmes. When training material was considered useful by teachers, they were happy with the training. Studies show that training module for training of *Shiksha Mitra* was found suitable (Goel, 2004). Teachers' training programme by and large was successful in sensitising teachers about the need for learning modern pedagogical inputs (Chakrabarty et al., 2005). Training of teachers for multigrade teaching had some effect on classroom interaction (Malav, 2006). The impact of training was more prominent on teachers with higher academic qualification (Khan et al., 2007). In a training programme, participants felt that importance was given to teaching skills (Naseema, 2008). Participants felt that they were benefited from the knowledge of hard spots in subjects and use of TLM (Shah, 2003). Studying the quality and impact of the training modules and the training programme under DPEP Phase-I for resource persons or trainers it was found that after teachers' training, 78 per cent mistakes made by the students were corrected on the spot. Teaching processes were found to be child centered (Singh, 2005). Another study reported that among the teachers, who underwent training, majority found it effective and teachers were implementing the training skills in classroom. Most of them were of the view that there was a scope for improvement in the training (Betsur et al., 2006).

Patel and Patel (2006) examined the impact of teacher training on activity-based participatory teaching learning process in classroom transaction. It was found that the use of self-made charts, pictures, models and students activities like puzzle solving and group work had increased in Mathematics, Environment Science and language classes after the implementation of SSA. Activities like children singing songs and children playing games came into the focus in teaching of Mathematics after implementation of the SSA. In teaching Environmental Science, classroom transaction activities included discussion about educational tours, teaching with TLM, use of action songs, collections, making albums, visit to museums, celebrations of festivals and other programmes related to environment.

In Andhra Pradesh, studying the impact of CLIP (Children Language Improvement Programme) it was found that the participants had developed cooperation among themselves. They shouldered more responsibility in improving the competency level of students. Children became confident and their achievement levels got improved. Teachers expressed positive opinion on the allotment of library period in the time table. In-service training programmes and modules were found useful by the teachers. School grant and teacher grants facilitated better teaching. Community involvement helped in successful implementation of CLIP. However, head teachers' supervision, MRPs monitoring and MEOs visits to schools were not satisfactory (Reddy and Rao, 2006). Studying the impact of CRC meetings it was found that they were useful. The methods demonstrated were implemented by teachers in classroom teaching. Teachers made use of action songs in teaching Gujarati language. Use of TLM increased students interest in learning and students' attendance also increased (Naik, 2006). In a comparative study of the effectiveness of the teacher training programmes, Mehta (2008) found that the percentage of teachers citing improvement was higher in Lalitpur as compared to Jhansi in their subject knowledge, motivation, teaching skills, increased use of new teaching methods and TLM.

A study on the in-service training programmes for teachers found that it was designed by the state level agency and DIET with no involvement of BRC or CRCs. As a result, local specific needs of teachers were not addressed appropriately (Eswaran and Singh, 2009). Mehta (2006) found that all trainers were not subject specialists and there was a lack of monitoring or follow-up and lack of motivation amongst teachers to use gains of training even though, they were satisfied with the content of training, subject knowledge and know-how for teaching of new syllabus or topics, knowledge of new teaching methods, teaching hard spots easily and effectively, increased use of TLM and improved teaching skills.

Availability of teachers is a very important concern. Apart from just the availability, it is important to study how usefully teachers invests their time in the classroom transactions. Also, training teachers based on these empirical evidence would be more appropriate. Along with the teacher absenteeism, it would also be worthwhile to study how schools engage learners meaningfully in the learning process. Apart from the formal teaching group, it is also necessary to study how schools utilise community resources

in engaging learners. The researchers also have to study issues surrounding professional development of teachers and the effect of the teacher training programmes on the actual transaction in the school contexts.

Learning Resources including Textual Material and ICT

Learning resources play a crucial role in the life of a learner. In the past it used to be called teaching aids as the teacher was understood to be the central focal point. This was prevalent for a long time. It became teaching-learning material after the realisation that learner and learning is equally important to that of teachers. With the NCF 2005, there was a complete departure where the primacy of the learner was held high and TLM became learning resources.

Shah (2003) reported that majority of teachers used poems, stories, dance, games and TLM to teach students. Teachers benefited from the knowledge of hard spots in subjects and use of TLM. In the context of RBC or NRBCs, it was found that a majority of the RBC or NRBC had adopted child-centered, activity-based practices, displayed material was attractive and the TLMs used were appropriate. Children participated actively in group activities (Savithri, 2005). Some schools also had hand-made TLM by the teachers or students (Singh, 2005). In another study, it was found that there was a maximum improvement in teachers' use ofTLM. Added to that, involving children in the process of learning has also improved. In fact, it is a foregone conclusion that learning resources are very useful. Its effectiveness depends upon many factors such as its appropriateness to the age and stage of learners, its static or dynamic nature, appropriate time when and how it was used, etc.

Textbooks are one of the most important supplements of curriculum. There are researches which have been done on textbooks. It was found that distribution of free textbooks had contributed positively towards enhancing the school enrolment, retention and quality education (Sarkar, 2008; Sahu, 2006). Paradoxically, curriculum transaction was limited to 'completing textbooks'. Textbook was the only teaching aid for most of the teachers (Warjri et al., 2006). Yet, most of the teachers were satisfied with different aspects of the textbooks including the content in relation to the prescribed time limit (Jain, 2005). While another study found that the textbooks were not outright gender sensitive. The visuals portrayed women in

stereotypical gender roles in textbooks which is not desirable (Oza, 2006). The fact remains that one common denominator that exists with perhaps all teachers is textbooks. The system needs to go beyond. It has implications for both pre-service and in-service teacher education programmes.

The Information and Communication Technology (ICT) has indeed provided many opportunities for teachers and students alike. Making teaching and learning more effective is in the hands of teachers and students. Therefore, teachers need to be sufficiently trained in the art of understanding the scope and possibilities of ICTs and facilitate learners in benefitting from ICT. Eventually, ICTs need to bolster and enhance the quality of learning.

ICT brought improvement in the area of reading and social intelligence (Krishnamurthy et al., 2004). Another study found that Computer Aided Education (CAE) has been successful in developing teachers' interest towards teaching and CAE school students secured more marks as compared to non-CAE school students (Das, 2008). In another study they found a positive effect of multimedia lab on enrolment and retention of children in the project schools. Teachers in project schools felt equipped and students enjoyed their learning experiences at the Multimedia lab (CAL Team and Singh (2007). Rout (2009) reported that majority of the teachers were not involved in the production process of ER and ETV programmes and there was also lack of a separate room for listening to ER programmes.

The effectiveness of teaching-learning depends upon many factors, such as its appropriateness to the age and stage of learners, its static or dynamic nature, when and how it is used, the duration and stage of teaching-learning etc. Regarding textbooks, the researchers are focused more on the availability aspects. However, it is necessary to study how textbooks and other supplements are used by teachers in the curriculum transaction. The starting point for such a research could be the different initiatives taken by teachers to plan, prepare, execute, evaluate and reflect the curriculum transaction. Even studying the effective use of textbooks itself, apart from different ways of using textbooks can be an important consideration for future research. On the issue of use of ICT in teaching and learning it would be worthwhile to study the use and abuse of ICT. In the Indian context, it has remained comfortable in the hands of very few and feared by many. There

is a need to see the facilitators and impeders of ICT mediation in teaching-learning situation.

Community Participation

One of the important aspirations of elementary education is to make schools accountable to community and also community owning school. The school and community linkage is very important for a healthy existence of the social system. There are few studies of which there are some success stories, failures and mixed stories. Among the success stories, Hussain and Hazarika (2008) found that community members monitored the work of teaching and non-teaching staff individually or in groups by checking registers and/or by other innovative methods. The community members' attitude towards the development of their schools was helpful and majority of them were also involved in different school activities including monitoring of the schools, academic improvement of the schools and supply of material (Momin et al., 2006). Community participation was high as school buildings were made available by the community who also contributed in terms of labour to build the school building. Frequent visits by SDMC members to schools resulted in mutual support and constant monitoring of school development and illiterate members were found to be as effective as literate members (Vaijayanthi et al., 2004). The establishment of volunteer support services and their functioning helped in improving awareness of the need of education and increase in the enrolment and they even distributed textbooks to children. VEC meetings were held regularly and minutes were maintained in the schools. Most head-teachers and VEC members were satisfied with the quality of work done under school grants (Kulkarni and Sadolikar, 2004). Parents and the VEC members recognised the role of VEC in organising environment building campaigns leading to considerable increase in demand for education and community involvement helped in successful implementation of CLIP (Reddy and Rao, 2006).

Singh et al., (2007) reported that the number of members in School Development Management Committees (SDMC) were as per the guideline and norms, but did not represent various groups. Meetings of SMDCs were irregular, mainly need based. They discussed construction, repair and maintenance of school building, purchase of TLM, etc. School grant were released and utilised through SDMCs. In another study (Lynoo et al., 2006), it

was found that PTA was formed in all blocks. VECs were in position in most villages. Most VECs looked into issues related to enrolment of children of relevant age group but, voluntary organisations as well as Village *Durbars* did not help in setting up new schools and render needed support services. Srivastava et al., (2008) recommended that there needs to be a community mobilisation to motivate parents to utilise the available opportunities for education of their children. Yet in another study (Warjri et al., 2006), it was found that about two third of the schools had PTAs and school staff, who did not understand how to mobilise the community. Another study found that the community participation was seen more as a means to achieve SSA goals rather than empowering community and creating awareness among them. Programme has been able to generate commitment in community to educate their children (Mahajan et al., 2008). A large majority of *Village Shiksha Samiti* sent utilisation certificate to district, a little more than half of the schools planned utilisation of school development grant and more than two third of the schools planned works for repair and maintenance grant (Singh and Pandey, 2007). A few VECs were found taking initiative on their own to generate resources from the village community by way of donations to meet demands of infrastructure for example, classrooms, boundary wall, etc. for the school while, most of the VEC members were not fully aware of the role of VEC (Sharma, 2004). Sahu (2006) found that the community served by government schools was more in favour of separate school for girls than that served by private schools. There was better cooperation of community for providing facilities in the government schools. The community served by government schools considered free textbook distribution, mid day meal, scholarships, sports facilities in the school and promotion of activities that children liked, as factors necessary for retention. The community served by private schools considered sports facilities, scholarships, more attention by teachers, more facilities in schools and activities liked by children as important factors for retention.

There are studies which depict a poor picture of community participation. The involvement of Panchayati Raj Institutions (PRI) was found to be low and so was the linkage between the school and the community (Kanwer and Sarmah, 2009), and the participation of parents and community in school activities was very low (Soni, 2005). SDMCs played an ineffective role in disseminating the

information about the programme related to schools (Research and Documentation Team, 2004) and failed in mobilising financial resources from the community. Lack of parental involvement was a major barrier (Padhi, 2006).

It would be interesting for researchers to undertake community-based collaborative action researches. These studies would be appropriate if the field level functionaries undertake them. But the success of educational programme could be ensured if community is prepared to own up the process and product of educational programmes. Studying the community participation issues superficially, would contribute little. Therefore large scale adoption studies by educational functionaries perhaps would be more appropriate. Different intervention studies to understand and bring about changes in the mindset of the community would also be useful as the present school community development models are not completely successful. There's a lot of scope for educational researchers in this area.

Infrastructure, Resources and Grants

A school can run effectively if it has the pre-requisites necessary to run. Some of them include infrastructure, resources and grants. Studies conducted on them include the following.

Infrastructure is indeed a critical requirement for any school to function. A positive correlation was found between the test scores with maintenance of existing classrooms (Barnhardt and Khemani, 2005). Most schools had insufficient classrooms and so the existing classrooms were overcrowded (Momin et al., 2006). The type of schools and the classrooms that had favourable environment was found to retain children in school (Sahu, 2006). The availability of separate toilets for girls was found to increase cleanliness amongst girls and increased their self-confidence (Merchant, 2006). Thus, infrastructure facilities facilitate learners to remain and participate in schooling process.

Included among the resources are human resources, material resources and time as a resource. Studies concerning human resources indicate that training teachers improved their subject knowledge, motivation and teaching skills (Mehta, 2008). In Meghalaya, majority of the teachers were found to be untrained, nor were they given equal opportunity to attend orientation or short term training programmes (Kharkongor, 2006). This adequately

emphasises the need and necessity of training for teachers. Teachers in KGBV were found to be very cordial (Mandal, 2007) which is also very important for enhancing the learning ambiance. Good and motivated teachers, better teaching quality, punctuality and discipline, school environment, infrastructure and facilities, practice of giving homework regularly and periodic tests were some of the things that prompted parents to send their children to private schools (Mehta et al., 2007), and ADEPTS' teachers were willing to put an extra effort required which resulted in the improvement of students' attendance, retention and achievement (SARED, 2009). Attention was also given to students' neatness. Good thoughts were found written on the walls. Patel and Patel (2006) reported that teachers followed the time table. Arrangement of proxy teachers was made whenever, a teacher was on leave. Teachers' interaction with the children was full of affection. Another study (Soni, 2005) found that facilities for education of children with disabilities were in the initial stages in HP and MP and non-existent in Meghalaya and Mizoram. No special teachers were appointed to help children with disabilities in any of the states.

Material resources are also necessary for effective functioning of a school. A study found that majority of schools had activities like TLM, Metric Mela, *Balmela*, Bridge courses and VEC/MTA/PTA assistance for school improvement and a majority of teachers used poems, stories, dances, games and TLM to teach students (Shah, 2003). Cycling to school improved the self confidence levels of girls and vocational trainings inputs improved retention of girls (Gender Unit, TSG-SSA, 2008). Use of instruments by experts and printed literature materials distributed during in-service training was useful and consequently students could learn easily with the help of pictures in the classroom. They liked going to school, listening to various types of stories in the classroom, enjoyed studies, played games in the school and took part in various activities. Reading materials for visually handicapped children were not available in schools of the four states (Soni, 2005).

Elementary schools get school grant, teacher grant, TLM grant and maintenance grant. Teacher grant was discontinued in between. These grants have also been a concern of researchers. A study found that in majority of the cases, the schools utilised the school grant, TLM grant and maintenance grant fully. *Village Shiksha Samiti* sent utilisation certificate to district. Planned utilisation of school development grant was seen in little more

than half of the schools (Singh and Pandey, 2007). Another study found that VECs were involved in the yearly maintenance of the buildings in the school complex. In Tamil Nadu and Gujarat the school took initiatives to develop and maintain provisions for children with special needs (Civil Works Unit, TSG-SSA, 2007), and grant was utilised mostly for maintenance, purchase or repair of furniture, purchase of blackboards, writing of motto and maps, etc. About half of the schools considered the grant to be adequate (Sharma, 2004).

Policies and Implementation

Ideally, any educational policy is to be formulated based on empirical evidences. The educational researchers and administrators need to inform and influence policy makers through their programmes, studies and outcomes. However, the gap between the policy makers and educational researchers continue to exist. It may not be incorrect to say that they run parallel without convergence. People in the system are expected to implement the policies by converting them into programmes. Implementers are many in the chain who function at different levels, with differing levels of understanding, involvement and insights in to the intrinsic aspirations. The successful implementation of any policy is directly related to the clarity and ease of implementation. There are different studies which have bearing on the policies and their implementation.

It was found that in the States with non-detention policy, teachers taught properly, students' attendance and enrolment increased, study stress and dropout rate at primary stage reduced (Chandrasekhar and Gupta, 2005). Use of TLM in the class made children participate actively during teaching learning (Ghose, 2007). Meena Manch enhanced and redeemed the educational and social life status of girl children (Pandey, 2008). CALP (Joshi et al., 2007) and involvement of teachers in the computer-based learning had a beneficial impact (Research and Documentation Team 2004) and Shiksha Mitra created classroom friendly and sympathetic atmosphere and they used TLM (Goel, 2004).

Savithri (2005) found that children in Residential Bridge Course (RBC) participated actively in group activities, they continued beyond teaching hours and they maintained records satisfactorily. In a satisfactory context, sampled upgraded schools in the initial

year of their establishment as EGS centers enrolled on an average about 52 children per center including boys and girls in almost equal members (Sharma, 2007). Some of the incentives for children have been implemented in schools satisfactorily. Scholarship amount of ₹50 per month were given to SC girls only at primary stage, at the upper primary stage ₹40 to SC girls and `30 to SC boys per month was given (Soni, 2008), and majority of eligible girls received the cycle in good condition at the beginning of the session which increased the enrolment of girls (Sharma and Yadav, 2008).

The above studies depict some of the success stories. However, there are stories which have a mixed texture. Sangai (2007) found that grading of schools and classrooms developed a sense of responsibility and a healthy competition among schools and teachers while, parents' meetings did not discuss irregular attendance. Another study found that majority of learners reported adequate availability of teaching-learning material but basic facilities of seating and drinking water were inadequate (Ghose, 2006).

About in-service training of teachers, it was found that most of the teachers had undergone in-service training of various kinds and durations but, it did not reflect in their classroom practices as 'good practices', and sound pedagogical practices' have not necessarily resulted in better performance of students (Prasad and NEEV research team, 2004). In another study, it was found that nearly, all teachers who were trained under IEDC scheme were familiar with the information regarding disability and had sufficient information about the special care to be taken of disabled children but, the facility of resource room was not available at block level (Chudasama et al., 2006). Another study found that the training modules were good but they should be revised from time to time (Singh, 2005). Another study found that the content included in all the programmes was observed to be adequate, relevant and useful except for tribal education. The quality of management of various teleconferencing programmes was satisfactory. Use of audio-visuals as support to presentation need to be more relevant and content based. Language needs to be simplified (Director, IMS 2007).

On the roles of CRCs and BRCs it was found that CRC in rural area appeared to receive relatively less support from BRC in their activities compared to their urban counterparts while, DIET provided guidelines to CRCs and schools in monthly assessment

meetings (Joshi and Gautam, 2009) and there was no practice of center level training by CRCC (Director, CYSD 2006). On the EGS centres it was found that mid day meal was being provided to the students but the performance of Shiksha Mitras need to be improved through regular training and orientation programme. Another study found that PTAs or MTAs were formed in a limited number of villages and they needed orientation and empowerment. Training was helpful to the EVs in teaching with activity-based and joyful learning methods (Director, CYSD 2006).

There is another set of studies where, the picture is not satisfactory at all. On the issue of mid day meal, Nath (2006) suggested that there has to be an additional financial support for increase in honorarium for the Bhojan Mata, supply of fuel and condiments and variations in recipes, and supplies need to be regularised by streamlining the supply system. It has been reported that more time was spent on cooking mid-day meals and less number of teachers and over-crowded classrooms affected teaching-learning processes (Barve, 2003). Regarding EGS centers, it was found that Education Volunteers (EVs) were not paid their honorarium regularly, their training was also inadequate and monitoring and evaluation of the EGS needed further strengthening (Das, 2006). In another study it was found that selection or appointment of Education Volunteers (EVs) in EGS was not based on merit and a majority of them were untrained and irregular. Added to that the VECs were also least interested in the affairs of the centers and the community participation was the least (Kharkongngor et al., 2006). Salam and Mandal (2007) showed that higher proportion of boys was mainstreamed compared to girls and this proportion was highest for STs and lowest for SCs. Reasons for non-mainstreaming of children in majority of cases were engagement in income generating or household activities.

It is felt that it would be appropriate to study where policies succeed and fail, in terms of their inability to reach the stakeholders and the dynamics of their implementation. Since education cannot succeed in the absence of the cooperation from all the stakeholders, it would be worthwhile to study the policy implementations in relation to the stakeholders' understanding and their willingness to co-operate in their implementation. Ideally, any policy should not fail and in reality all policies do not succeed. Therefore, the gap between the ideal and the real situations need to be studied and the policymakers need to be informed accordingly. Another potential

area which needs further exploration is the functionaries that exist at the sub-state levels, such as the district level functionaries, block level functionaries, clustered level functionaries and school level functionaries. Though, if different structures exist, the coordination and the navigation is not smooth. The school community linkages are yet another concern which could be examined by researchers. Midday meals scheme and its implementation is another key area. Hitherto, this has remained as only an act of providing food to children in order to retain them as healthy children. Perhaps, many case studies and in-depth studies about the whole implementation of mid day meal would even support the system to function better. The possible impact of midday meal on children, their health, their retention, their learning and overall development of personality need to be studied.

State-of-the Art of Research in Elementary Education in India: An Analysis

Murthy (2004) collected 438 researches (157 or 36 per cent conducted for the award of M.Phil., Ph.D. and D.Litt. degrees and 281 or 64 per cent covering the research papers published in journals and research projects) and analysed them into degree-oriented and non-degree-oriented studies. These studies were analysed in terms of methodological concerns and substantive issues in elementary education. Among the degree-oriented studies, it was found that 82 per cent of studies belonged to the PhD level. So, doctoral level studies contributed a major chunk to the above pool which was followed by the M.Phil (17 per cent) and D.Litt. (1 per cent) studies. Further, among the 157 studies of the degree-oriented studies, those in education consisted of 91 per cent while, research studies in other disciplines comprised 9 per cent only.

Under the methodological concerns, issues such as the sample used, sample size, tools and techniques used and choice of the treatment of data were studied. It was found that a majority of the Degree-Oriented Studies (DOSs) included samples ranging from '100 to 600' while, majority of Non-Degree-Oriented studies (NDOSs) used sample ranging `less than 100 to 300 subjects'. This suggests a tendency on the part of DOSs to select a relatively larger sample as compared with that of NDOSs. With regard to the large sample sizes, i.e., 600 and above, both DOSs and NDOSs showed more or less a similar trend. Hence, DOS and NDOS groups differed specifically on the use of small samples. DOS and NDOS researchers were also

compared on other methodological concerns i.e., studying student sample of different classes or standards. On the whole, researchers studying elementary education used other than student sample to the tune of almost 30 per cent. Hence, the category 'Others' formed a perceptible portion. This was true irrespective of whether it was degree-oriented or non-degree-oriented studies. As the data did not indicate any class specific preference an attempt was made to study the relative preference of levels/standards/classes and found that relatively Class IV was studied the most followed by Classes V, III, I, II, VIII, VII, and VI. If one analyses the preferences, one gets a picture that the terminal stage of primary education, (in some states it is Class IV and in some, it is Class V) was the choice of both the DOS and NDOS groups. With regard to the sample composition, it was attempted to segregate different samples studied by DO and NDO groups and found that researchers on the whole studied student samples mostly, to the tune of 43 per cent followed by teachers of elementary schools and schools or NFE centres.

Researchers predominantly used different tests or scales or inventories followed by achievement or diagnostic tests, questionnaires, interview and different schedules. Though, other tools and techniques were used, their use was much less. Further, it was also found that DOSs used tests or scales or inventories and achievement or diagnostic tests, relatively more than NDOSs, while NDOSs used other tools and techniques i.e., questionnaire, interview, proforma, observation, intervention and textbooks or modules more in comparison with DOSs. The use of qualitative techniques was relatively higher in NDO studies. This preference is perhaps due to the kind of training that educational institutions impart in education. It could perhaps be explained on the following lines: Firstly, DOS researchers undergo training in research methodology and generally, belong to the learner generation while, NDO comprise learners and teachers or professionals. Secondly, quantitative data treatment techniques are progressing rapidly. Therefore, it is but natural on the part of DO researchers to get attracted more to quantitative techniques as the use of figures help in proving or disproving a conjecture tested with an element of precision. Thirdly, acceptance of the qualitative data analysis in educational research is still slowly percolating down to the levels of students of education. This methodology is borrowed more from sociology and psychology and is not easy to master.

With regard to the use of inferential statistics, it is evident that, DO researchers outnumbered NDO researchers. This could be understood and explained from two viewpoints. Firstly, a DO researcher cannot negotiate on certain assumed requirements i.e., the chapter scheming of the research reporting, requirement of certain pattern of methodological use, coverage of a certain number of variables etc. Therefore, DO researchers perhaps, prefer to use all possible exercises of testing their hypotheses using different statistics. The NDO researcher does not have to satisfy these conditions. Secondly, NDOs cover research projects as well as research papers published in professional journals. Research papers vary in terms of the coverage apart from the use of both qualitative and quantitative methods. In research papers one cannot expect the use of application of as many statistics as we do in a degree-oriented study.

In order to study whether, DO and NDO researchers differ with regard to their preference on substantive concerns, different kinds of data were generated based on the analysis of the substantive issues studied by different researchers. The substantive concerns covered issues that have been studied, the nature of the sample studied or the sample composition. It means teaching learning had been the substantial focus of researchers. This trend is almost the same with both the groups. Relatively speaking, DO researchers studied both students and teachers slightly more than NDO researchers.

Researchers have attempted to study many concerns within different factors. On systemic factor, it was found that around two-third was contributed by NDOSs while about one third was contributed by DOSs, it indicates less number of DOSs and more number of NDOSs have studied systemic factors. Within the systemic factors, it was found that programme evaluation was on the top, followed by problems of education, educational development, school assessment or profile, social factors and policy, administration and management of education and project evaluation. This indicates the relative priority shown by the researchers at the elementary education level.

Among the DOSs, the focus was on programme evaluation, followed by educational development, social factors and problems of education. Programme evaluation was studied most because it followed a methodology, which as students they would have studied. With regard to educational development, perhaps, this is

one area that did not demand the use of sophisticated designs—another set of DO researchers might have felt comfortable with approaches like historical approaches, using secondary source of data on desk. With regard to studies on social factors, researchers who had either sociological orientation or those who had interests in sociological perspectives might have seen education from their perspectives and might have preferred to undertake such research for degrees too.

Among DOSs, problems of education were also studied. These studies focused on various problems associated with access, enrolment, retention, stagnation, dropout etc. However, relatively less preference was given to problems of education in comparison to educational development. Therefore, it seems positive concerns attracted DO researchers more than the problems and issues that are plaguing education.

If one analyses the direction of priorities given by NDO researchers, it is evident that they tried to study impediments of UEE through problems of education, followed by school related issues, evaluation of different programmes within teaching learning institutions. With regard to DOS, more studies were conducted on the evaluation of programmes, followed by educational development, social factors and forces at work in education. Problems of education have received the least priority.

Concerns identified with respect to school factors focused more on concerns about teaching-learning factors followed by curriculum studies, teacher and training factors and issues related to educational technology. The other areas were researched the least. The proportion of DOSs and NDOSs were almost in proportions 1:2 respectively. It is DOSs who predominantly focused on teacher and teacher training factor, followed by curriculum studies, teaching-learning factors and educational technology. Whereas, among the NDOSs, teaching-learning factors dominated the scene, followed by curriculum studies, teacher and teacher-training factors and educational technology. DOS researchers studied more teacher-related issues and curriculum issues followed by teaching-learning factors while, the reverse was the priority accorded by NDOSs. This indicates the difference in the priorities. If one looks at the percentages of DOSs and NDOSs, it is evident that around 35 per cent of DOSs were teacher-centered while, almost the same percentage of studies were teaching learning-centred among NDOSs, suggesting that DOSs were more or less presage-factors concerned

while, NDOSs were process factors concerned. The core requirement of educational research is to study educational processes. Since, more number of NDOSs have attempted on this, they have become more relevant in elementary educational researches. It is argued that studying the presage components should be the concern of other cognate disciplines such as Philosophy, Psychology and Sociology while, educational research must focus on process and processes leading to products. From this viewpoint, the research studies undertaken by NDOSs are more relevant.

Trends and their foci with regard to pupil factors indicates that on the whole, correlates of achievement were researched the most, followed by pupil assessment, disability and cognitive and personality development. A majority of DO researchers studied Pupil assessment more than NDO researchers while, the reverse was true on 'Achievement correlates'. Concerns related to 'Pupil assessment' belonged to Presage aspects, while the concerns related to 'Academic achievement' belong to product aspects. It has been argued earlier that the educational research need to focus on educational processes leading to product and the presage aspects be studied by cognate disciplines. Educational researchers need to build on the available research knowledge on presage aspects and invest time, money and resources on process and product variables. From this perspective, the contributions of NDO researchers seem to be more relevant to education in comparison to DOS researchers.

The above broad trends seen in educational researches at elementary education suggests that there is a need on the part of student researchers who wish to work in the area of elementary education as well as their supervisors, to move away to become more relevant to the cause of elementary education than focusing more on obtaining or getting degree following accepted procedures of research in justifying their degrees alone. There is a need for bold initiatives in studying elementary education concerns are needed.

Conclusion

There have been impressive set of researches in the area of elementary education conducted at the national level. This report has attempted to synthesise the researches into different sections and enumerated what is required. It is important to bring all children to school and ensure that they learn. Whereas, access is no longer an issue, improving quality of elementary education need to be focused in research. Quality is a multidimensional term which

includes quality of physical space in the school, teaching-learning material, classroom processes including assessment procedures, academic support to teachers, involvement of community in the functioning of the school, and so on. A participative process of governance needs to be evolved. The *National Education Policy 2020* recommends adopting the pedagogy of experiential learning (i.e., integration of art, sports, story-telling, ICT) in the schools. In addition to recommending a new structure of school education, the Policy also calls for curricular integration of essential subjects, skills and capacities. The need today is to develop a holistic learner through the process of education. Providing equitable and inclusive education to all, including the gifted, is the demand. There is a need to undertake in-depth research on these issues using different methodologies, be it quantitative, qualitative, or mixed, to inform policy and practice. The researchers need to move beyond the pure academic pursuits and undertake socially relevant researchers having implications for the school education system in the country. This will help all stakeholders to follow and undertake evidence-based decisions. It is hoped that elementary education in India will address this challenge in the future research.

References

Acharya, S. 2007. *Problems of Enrolment, Retention, and Achievement among the Students of Primitive Tribes of Orissa.* Post graduate Department of Anthropology. Utkal University, Bhubaneswar.

Ahmed, M. 2008. *A Study on Teacher Absenteeism and Students' Attendance in Primary and Upper Primary Schools in Uttar Pradesh.* Haryali Center for Rural Development, New Delhi.

Akcayir, M. and G. Akcayir. 2017. Advantages and Challenges Associated with Augmented Reality for Education: A Systematic Review of the Literature. *Educational Research Review.* Vol. 20, pp. 1–11. https://doi.org/10.1016/j.edurev.2016.11.002

Arora, Y., R.P. Huria, A.R. Sharma and V.K.B. Singh. 2002. *Terminal Assessment Survey in DPEP Phase – II Districts of Haryana.* SIEMAT, Bhiwani.

Arora, S., and J. Pandey. 2008. *Migration of Child labor to Gujarat: Reasons and remedies.* State Institute of Educational Research and Training, Udaipur.

Baldauf, R.B., R.B. Kaplan, N. Kamwangamalu and P. Bryant. 2011. Success of Failure of Primary Second/foreign Language Programmes in Asia: What Do the Data Tell Us? *Current Issues in Language Planning.* 12, 309–323.

Banerji, R., H. Shetty, R. Karbare and S. Srianarain. 2005. *Education for All in India's Mega-Cities Issues from Mumbai and Delhi.* Pratham Resource Center, New Delhi.

Banerje, A., S. Cole, E. Duflo and L. Linden. 2004. *Remedying Education Evidence from Two Randomized Experiments in India.* Pratham Resource Centre, New Delhi and Cambridge, USA.

Banerjee, R. and A. Mehandale. 2006. *Understanding Inclusive Practice and Community Initiatives to Make Education Accessible.* Sava in Action Association, Bangalore.

Barnhardt, S. and S. Khemani. 2005. *Why Do Some Schools Do Better Than Others in the Same Region.* Azim Premji Foundation, Bangalore.

Barve, A. 2003. *Analytical Study of the Factors Causing Obstacles in the Implementation of Different Aspects of Educational Quality in DPEP.* Govt College of education, Raipur.

Bascia, N. and B. Faubert. 2012. Primary Class Size Reduction: How Policy Space, Physical Space, and Spatiality Shape What Happens in Real Schools. *Leadership and Policy in Schools*. Vol. 11, No. 3. pp. 344–364. https://doi.org/10.1080/15700763.2012.692430

Betsur, N.C., S.S. Swamy, T.M. Geetha and M. Jamal. 2006. *An Evaluation of Integrated Education of the Disabled Program in Karnataka.* Karnataka State Women's University, Bijapur.

Bhatia, K. 2014. Analysis of Home Assignments of Students at the Primary Level an Evaluative Study. *Journal of Indian Education,* (May).

Bhatta, B.K. and P.K. Bora. 2009. *Joyful Learning of Kasren.* Nagaon: An Impact Study Nowgong Girls College.

Bhuwal, M.K. 2003. *Comparative Study of the Effect of Socio-economic Status on the Self-perception and Scholastic Achievement of SC and ST Students.* Govt College of Education, Raipur.

Bielefeldt, T. 2013. Guidance for Technology Decisions from Classroom Observation. *Journal of Research on Technology in Education*. Vol. 44, No. 3, pp. 205–223.

Boyle, E.A., T. Hainey, T.M. Connolly, G. Gray., J. Earp, M. Ott, … J. Pereira. 2016. An Update to the Systematic Literature Review of Empirical Evidence of the Impacts and Outcomes of Computer Games and Serious Games. *Computers and Education*. Vol. 94. pp. 178–192.

Bunch, G. and A. Valeo. 2004. Student Attitudes Toward Peers with Disabilities in Inclusive and Special Education Schools. *Disability and Society*. Vol. 19, No. 1. pp. 61–76.

CAL, Team. and V.P. Singh. 2007. *An Impact Study of the Innovative Multimedia Program in Increasing the Enrolment and Retention of Children at Elementary Level.* Office of the UEE Mission. Department of Education, New Delhi.

Callow, J. and J. Orlando. 2015. Enabling Exemplary Teaching: A Framework of Student Engagement for Students from Low Socio-Economic Backgrounds with Implications for Technology and Literacy

Practices. *Pedagogies: An International Journal.* Vol. 10, No. 4. pp. 349–371. https://doi.org/10.1080/1554480X.2015.1066678.

Chadha, A., et al. 2005. *Evaluation of Inclusive Education under DPEP III in Jharkhand.* Jharkhand Education Project Council. Ranchi, Jharkhand.

Chakrabarty, A., B. Bagchi, et al. 2005. *An Assessment of In-service Teachers Training Programs in Five Districts of West Bengal.* Institute of Development Studies, Calcutta University. Kolkata, West Bengal.

Chakraborty, T. and R. Khanna. 2008. *Study of the Status of Alternative Schooling under SSA.* Mott mac Donald, Noida.

———. 2008. *Study of Different Interventions for Out-of-school Children in the State of Rajasthan.* Mott Mac Donald, Noida.

Chandrasekhar, K. and S.K. Gupta. 2005. *Non–detention Policy in the States.* Department of Measurement and Evaluation. NCERT, New Delhi.

Chauhan, S. 2017. A Meta-analysis of the Impact of Technology on Learning Effectiveness of Elementary Students. *Computers and Education.* 105, pp. 14–30. https://doi.org/10.1016/j.compedu.2016.11.005

Choudhury, A.N., J. Pranab and G. Bharali. 2008. *Impact of IED Intervention in the Areas with Full Resource Support and Partial Resource Support Provided from SSA- a Comparative Analysis.* Xavier's Foundation for Social and Educational Development and Research, Guwahati.

Chudasama, G., Y. Jadeja and D. Maheta. 2006. *Impact of Integrated Education for Disabled Children.* Shikshan Ane Samaj Kalyan Kendra, Amreli.

Clark, I. 2015. Formative Assessment: Translating High-level Curriculum Principles into Classroom Practice. *The Curriculum Journal.* Vol. 26, No. 1. pp. 91–114. https://doi.org/10.1080/09585176.2014.990911

Civil Works Unit, TSG-SSA. 2007. *National Evaluation of Civil Works Under Sarva Shiksha Abhiyana Programme.* Civil Works Unit Technical Support Group–SSA, EdCIL, New Delhi.

CMS. 2008. *Teachers' Absence and Students' Attendance in Primary and Upper Primary Schools of Karnataka.* State Catalyst Management Services Pvt. Ltd., Bangalore.

Das, B.B. 2008. *Performance Assessment of Computer-aided Education under SSA.* Xavier Institute of Management. Bhubaneswar, Orissa.

———. 2006. *Comparative Assessment of the Functioning of EGS Centers Managed by Government and NGOs in Orissa.* Xavier Institute of Management. Bhubaneswar, Orissa.

———. 2007. *Evaluation of the Impact of IED Intervention with a Focus on Enrolment and Retention in the School.* University Guwahati. Gawahati, Goa.

Datamation. 2006. *Terminal Achievement Survey with Reference to BAS, MAS under DPEP.* Phase-I Datamation, New Delhi.

Davies, D., D. Jindal-Snape, C. Collier, R. Digby, P. Hay and A. Howe. 2013. Creative Learning Environments in Education—A Systematic Literature Review. *Thinking Skills and Creativity.* 8, pp. 80–91. https://doi.org/10.1016/j.tsc.2012.07.004

Day N., V. Chauhan and L.M. Sanwal. 2008. *Study on Students' Attendance in Relation to Mid-day Meal Scheme in Primary Schools.* Academy of Management Studies. Dehradun, Uttarakhand.

DEME. 2002. *Learning Achievement of Class V Children.* Round I Department of Measurement and Evaluation. NCERT, New Delhi.

———. 2004. *Learning Achievement of Class III, VII and VIII Children Round I.* Department of Measurement and Evaluation. NCERT, New Delhi.

———. 2006. *Learning Achievement of Class V Children – Round II.* Department of Measurement and Evaluation. NCERT, New Delhi.

———. 2008. *Learning Achievement of Class III, VII and VIII Children – Round II.* Department of Measurement and Evaluation. NCERT, New Delhi.

Devi, S. and S.R. Kamari. 2007. *Situational Analysis of Residential Bridge Course in Andhra Pradesh.* Acharya N.G. Ranga Agricultural University. Hyderabad, Andhra Pradesh.

Devi, S., S.R. Kumari, L.U. Devi, L. Sreevani, S. Prasanthi and K. Sujatha. 2006. *Evaluation of DPEP in Andhra Pradesh.* Acharya N.G. Ranga Agricultural University. Hyderabad, Andhra Pradesh.

Diamond, J.B. 2012. Accountability Policy, School Organization and Classroom Practice: Partial Recoupling and Educational Opportunity. *Education and Urban Society.* Vol. 44, No. 2. pp. 151–182. https://doi.org/10.1177/0013124511431569

Director, CYSD. 2006. *Effectiveness of Monitoring System of EGS Center.* Centre for Youth and Social Development. Bhubaneswar, Orissa.

Director, IMS. 2007. *Learning-teaching Problems of Tribal Children and Development of Strategies.* Institution of Media Studies. Bhubaneswar, Orissa.

———. 2007. *Report on Feedback Analysis on Teleconference Programmes.* Institution of Media Studies. Bhubaneswar, Orissa.

Dogra, B. 2013. Challenges and Issues in Environmental Studies (EVS) Teaching at the Primary Stage. *Indian Educational Review.* Vol. 51, No. 2.

Dubey, V.K. and Y. Pandey. 2012. Problems Faced by Special Teachers in Implementing Inclusive Education under Sarva Shiksha Abhiyan. *Journal of Indian Education,* (May).

Duraisamy, M. 2006. *Enrolment and Retention of Girls in Elementary Education in Tamil Nadu.* SSA State Project Directorate. Tamil Nadu, Chennai.

Ekstrand, B. 2015. What It Takes to Keep Children in School: A Research Review. Educational Review. Vol. 67, No. 4. pp. 459–482. https://doi.org/10.1080/00131911.2015.1008406

Feniger, Y., M. Israeli and S. Yehuda. 2016. The Power of Numbers: The Adoption and Consequences of National Low-stakes Standardised Tests in Israel. *Globalisation, Societies and Education.* Vol. 14, No. 2. pp. 183–202. https://doi.org/10.1080/14767724.2015.1010438

Gender Unit., TSG-SSA. 2007. *National Evaluation of Kasturba Gandhi Balika Vidyalaya Scheme.* Gender unit, Technical Support Group – SSA, EdCIL, New Delhi.

———. 2008. *National Evaluation of Kasturba Gandhi Balika Vidyalaya Scheme.* Gender Unit, Technical Support Group SSA, EdCIL, New Delhi.

———. 2008. *Evaluation of National Programme for Education of Girls at Elementary Level.* Gender Unit, Technical support groups – SSA, EdCIL, New Delhi.

Ghose, P.P. 2006. *Evaluation of Mahila Samakhya. Asian Development.* Research Institute (ADRI). Patna, Bihar.

Ghose, A.K. 2007. *Utilization of TLM, SIG and R and M Grants in Primary Schools.* District Institute of Education and Training, Sankara, Sundargarh.

Gohil, S., M. Radadiya and D.P. Patel. et al. 2006. *Study Regarding Out-of-school Children of Migratory Families.* The Causes and Solutions Shikshan Ane Samaj Kalyan Kendra, Amreli.

Goel, S. 2004. *Evaluation Study of Para-teachers.* State Institute of Educational Management and Training. Allahabad, Uttar Pradesh.

Hazarika, D. 2009. *Effectiveness of the Present Evaluation System in Elementary Level.* Society for Socio-economics Awareness and Environment Protection, Nagaon.

Hussain, T.A. and R. Hazarika. 2008. *Functioning and Effectiveness of Involvement of Members of Various Peoples Committees in SSA.* Activities North East Social Trust (NEST). Golaghat, Assam.

Jain, N. 2005. *A Critical Appraisal of Primary Level Textbooks on Environmental Studies.* Govt College of Education Institute of Advanced Study in Education (IASE). Bhopal, Madhey Pradesh.

Jalaluddin, A.K., S.N. Prasad and NEEV Research Team. 2004. *Study of Pedagogical Practices and Learning Achievements in LGP Schools.* Azim Premji Foundation, Karnataka.

Jay, M. 2003. Critical Race Theory, Multi Cultural Education, and the Hidden Curriculum of Hegemony. Multicultural Perspectives. Vol. 5, No. 4. pp. 3–9. https://doi.org/10.1207/S15327892MCP05042.

Jayalakshmi, T.K., et al. 2003. *Terminal Assessment Survey in DPEP Phase II districts in Karnataka.* RV Educational Consortium. Bangalore, Karnataka.

Joshi, S.N., V. Chauhan and L.M. Sanwal. 2007. *Study on the Impact of Computer Aided Learning. On Achievement* Level of Students Academy of Management Studies. Dehradun, Uttarakhand.

Joshi, S. 2007. Effectiveness *of Remedial Teaching on Learner's Achievement at Elementary Level M.P.* Ujjain: Institute of Social Science Research.

Joshi, S. and N. Gautam. 2009. *A Study of the Effectiveness of Cluster Resource Centers Shiksha Kendra' in Madhya Pradesh.* Institute of Social Science Research. Ujjain, Madhya Pradesh.

Julka, A. 2003. *Strengthening the Teacher Education Curriculum of DIETs from the Perspective of Special Needs Education.* Department of Education of Groups with Special Needs. NCERT, New Delhi.

———. 2005. *A Study of Programme and Practices for the Education of Children with Special Education Needs.* In Different States Department of Education of Groups with Special Needs. NCERT, New Delhi.

———. 2005. *A Review of Existing Instructional Adaptations (General and Specific) is being Used in Integrated / Inclusive classrooms.* Department of Education of Groups with Special Needs. NCERT, New Delhi.

Kamath, A.V.D. 2011a. *First Half Yearly SSA–RTE Monitoring Report of Mysuru, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

———. 2011b. *Second Half Yearly SSA–RTE Monitoring Report of Davanagere, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

———. 2012a. *Third Half Yearly SSA–RTE Monitoring Report of Chikkaballapura, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

Kamath, A.V.D. 2012b. *Fourth Half Yearly SSA–RTE Monitoring Report of Madhugiri, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

Kanwer, S. and J.S. Sarmah. 2009. *Involvement of Panchayati Raj Institutions (PRIs) in School Support System.* Department of Political Science, Gauhati University. Guwahati, Goa.

Kelly, A.V. 2009. The Curriculum: Theory and Practice. *SAGE Publications Ltd; Sixth Edition Edition.* pp. 336–336. https://doi.org/10.1080/02615470802681344.

Khan, F.S. and A. Asif, et al. 2007. *A Study of the Impact of Teachers Training at the Primary and Upper Primary of Level.* Institute of Advanced study in Education. Bhopal, Madhya Pradesh.

Khare, M. 2007. *Effect of Classroom Culture on the Learning Level of Girl Child.* Jan Mangal Institute Chindwara, Madhya Pradesh.

Khare, U., A. Palker and Y.S. Khatana. 2007. *A Study of Teachers' Absence at Primary and Upper Primary Level.* LASE, Bhopal.

Kharkongor, J. 2006. *Study on the Assessment of Quality Education in elementary schools.* District Institute of Education and Training. Nongpoh, RiBhoi, Meghalaya.

Kharkongngor, J., B.D. Marbaniang, O. Rapsang and R. Kynta. 2006. *Case Study on the Effectiveness of Education Guarantee Scheme.* District Institute of Education and Training. Nongpoh, Ri-Bhoi, Meghalaya.

Kishore, L. and P. Kulhari. 2008. *An In-depth Study of Classroom Processes and Their Bearing Upon Learners' Retention and their Achievement.* Centre for Unfolding Learning Potentials, Jaipur.

Kristian, B. and D.R. Gupta. 2006. *Dropout Children in Himachal Pradesh.* Himachal Pradesh University. Shimla, Himachal Pradesh.

Krishnamurthy, H. et al. 2004. *Impact of Computer Aided Learning on Children with Specific Learning Disabilities.* Shimla Spastics Society of Karnataka, Bangalore.

Kulsum, U. 2008. *Effect of School and Home Factors on the Attendance of Children at a Primary Stage in Karnataka.* Department of Post Graduate studies in Education. Bangalore University, Bangalore.

KULKARNI, V. AND P. SADOLIKAR. 2004. *Evaluation of Infrastructural Grants under DPEP.* (1994 to June 2003) Jnana Prabodhini, Pune.

KUMAR, K. AND J.K. GUPTA. 2006. *Role of Block and Cluster Resource Centers for Quality Improvement in Elementary Education.* Society for Applied Research in Education and Development (SARED), Noida.

KUMARI, S. AND N. KUMAR. 2009. *Impact Study on the Functioning of NPEGEL Programme in Jharkhand.* Madhur Muskan. Ranchi, Jharkhand.

KUSHWAHA, M. 2012. Effects of School Language-home Language Gap on Primary Education: A Study of First Generation Learners of Disadvantaged Groups. *Indian Educational Review.* Vol. 50, No. 2.

NCERT. 2017. *Learning Outcomes at the Elementary Stage.* NCERT, New Delhi.

LEITHWOOD, K. AND D. JANTZI. 2009. A Review of Empirical Evidence About School Size Effects: A Policy Perspective. *Review of Educational Research.* Vol. 79, No. 1. pp. 464–490. https://doi.org/10.3102/0034654308326158

LOCHAN, R. 2007. *A Study on the Increasing Rate of Dropout in Different Cases at Primary Level.* Shuruat, Bhopal.

LYNOO, H.S., B. NONGBRI, S. HYNNIEWTA AND A. MAJAW. 2006. *Study on the Assessment of Quality Education in Elementary Schools.* District Institute of Education and Training. Nongstoin, West Khasi Hills district, Meghalaya.

LYNGDOH, S., N. PARITAN, W. NIKHLA AND B. DKHAR. 2006. *A Case Study of the Effectiveness of Education Guarantee Scheme under SSA in West Khasi.* Hills district Institute of Education and Training. Nongstoin, West Khasi Hills district, Meghalaya.

MACHIN, S., S. MCNALLY AND G. WYNESS. 2013. Educational Attainment across the UK Nations: Performance, Inequality and Evidence. *Educational Research.* Vol. 55, No. 2. pp. 139–164. https://doi.org/10.1080/00131881.2013.801242

MAHAJAN, A., V.P. GOYAL AND R. ABHIGYAN. 2008. *A Study on Community Motivation and Mobilization Strategies with Reference to Their Bearing upon the Active Participation of the Community in Achieving the Goals of SSA.* Aide-et-Action, Jaipur.

MAHANTA, U.J. AND P.K. BARUA. 2008. *Assessment of Teachers' Competencies and Teachers' Performance.* North East Overall Welfare Action Implementation Society Jorhat, Assam.

MAJUMDAR, B.G. AND A. RAYCHAUDHURI. 2012. Attendance is one of the Major Factors for Academic Performance of the Students of Elementary Classes. *Indian Educational Review.* Vol. 50, No. 1.

MALAV, L.G. 2006. *Sample Monitoring on Impact of Training of Teachers for Multigrade Teaching.* Department of Education, Gujarat University. Ahmadabad, Gujarat.

MANDAL, P. 2007. *Contribution of Kasturba Gandhi balik Vidyalaya on SC/ST girl's Education.* Jharkhand Education Project Council. Ranchi, Jharkhand.

Mehar, V. and J. Kaur. 2010. Effect of Experiential Learning Strategy on Enhancement of Environmental Awareness Among Primary School Students. *Indian Educational Review.* Vol. 47, No. 2.

Mehrotra, A. 2006. *Assessment of Functioning and Effectiveness of Kasturba Gandhi Balika Vidyalayas.* Global Ideas, Lucknow, Uttar Pradesh.

Mehta, L.M. 2008. *A Study on the Outcomes of Lalitpur Experiment Conducted in Association with UNICEF to Improve the Quality of Education.* Media Research Group, New Delhi.

Mehta, M. 2006. *Impact of Teachers' Training on Students' Attendance and Achievement Level.* Media Research Group, New Delhi.

Mehta, L.M., M.R. Verma and B. Kishore. 2007. *Comparative Study of Factors Leading to Higher Learning and Achievement Levels among Students in Government and Private Schools.* Media Research Group, New Delhi.

Merchant, A.M. 2006. *Impact of Sanitation Units on Enrolment and Retention of Girls in Primary Schools.* Dr. Babasaheb Ambedkar Open University, Ahmedabad.

Misra, A. and B. Baraj. 2008. *A Sample Survey of School Children in 5 Districts of Uttar Pradesh.* ORG Center for Social Research, Ltd. Lucknow, Uttar Pradesh.

Mishra, R. 2007. *The Impact of Incentives and Interventions Under National Programme for Education of Girls at Elementary Level for Promoting Girl's Education.* Nabakrushna Choudhury Centre for Development Studies. Bhubaneswar, Orissa.

Mokibelo, E. 2016. Implementation of the Language-in-education Policy and Achieving Education for all Goals in Botswana Primary Schools. *Universal Journal of Educational Research.* Vol. 4, No. 1. pp. 157–164. Retrieved from https://eric.ed.gov/?q=Mokibeloandid=EJ1086218

Momin, J.C., D.R. Marak, J.A. Marak, G. Gretus, T. Sangama and D. Shira. 2006. *Study on the Assessment of Quality Education in Elementary Schools.* District Institute of Education and Training. Baghmara, South Garo Hills District, Meghalaya.

Momin, T.G., A.B. Marak, E.D. Sangama and N.C. Sangama. 2006. *Study on Assessment of Quality Education in Elementary Schools.* In East Garo Hills district District Institute of Education and Training. Resubelpara, East Garo Hills, Meghalaya.

Mohan, S. and K.P. Pandey. 2004. *Study in Dropouts of Ballia.* Kushinagar, Bijnor and Etah State Council of Educational Research and Training, Lucknow, U.P.

Murthy, C.G.V. 2004. Investigating Differences between Degree Oriented and Non-degree-oriented Studies (DOSs-NDOSs). *Perspectives in Education.* Vol. 20, No. 3. pp. 175–185.

———. 2011a. *First Half Yearly SSA–RTE Monitoring Report of Hassan, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

———. 2011b. *Second Half Yearly SSA–RTE* Monitoring Report of *Raichur, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

———. 2012A. *Third Half Yearly SSA-RTE Monitoring Report of Kolar, Karnataka.* Regional Institute of Education. NCERT, Mysuru.

———. 2012B. *Fourth Half Yearly SSA-RTE* Monitoring Report of *Dharwad*, *Karnataka.* Regional Institute of Education. NCERT, Mysuru.

MURTHY, C.G.V. 2015. *First Half Yearly SSA–RTE Monitoring Report of Bagalkote*, *Karnataka.* Regional Institute of Education. NCERT, Mysuru.

NAGARAJU, G. 2008. *Teachers 'Absence in Primary and Upper Primary Schools in Andhra Pradesh.* Rajiv vidya mission (SSA). Hyderabad, Andhra Pradesh.

NAIK, I. 2006. *The Impact of CRC Monthly Meetings on Teachers' Empowerment.* IASE Shikshan Mahavidyalaya Gujarat Vidhyapith, Ahmedabad.

NASEEMA, C. 2008. *Sarva Shiksha Abhiyan Programme.* Concurrent Evaluation Department of Adult, Continuing Education and Extension Services. University of Calicut, Kerala.

NATH, D. 2006. *Study of Convergence of Other Govt. Schemes and Programmes with the Primary Education Programme and Its Effect on Quality of Education.* Context of MDM and ICDS New Concept Information Systems Pvt. Ltd., New Delhi

NATIONAL EDUCATION POLICY. 2020. Government of India, New Delhi.

OPOH, F.A., F.T. OKOU AND R.A. IKANG. 2015. Universal Basic Education Programme for Global Competitiveness: A Need for Paradigm Shift. *Journal of Education and Practice.* Vol. 6, No. 34. pp. 1–6. Retrieved from https://eric.ed.gov/?q=Universal+Basic+Education+Programme+for+Global++ Competitiveness per cent3a+A+Need+for+Paradigm+Shift++andid=EJ1086097

ORG CENTER FOR SOCIAL RESEARCH. 2006. *Terminal Assessment Survey in Six DPEP Districts of Gujarat.* (Phase–IV) ORG — Marg Pvt. Ltd., New Delhi.

———. 2006. *To Estimate and Identify Reasons for Class wise Dropout and Repetition Rate at the Elementary Level.* And Transition to Upper Primary Level ORG-MARG, New Delhi.

———. 2006. *The Impact and Effectiveness of Innovative Programmes in Girls' Education Programme in Uttarakhand.* ORG Centre for Social Research, ORG-MARG, New Delhi.

———. 2006. *Study on Achievement Level in Language and Mathematics of the Students Passing the Class I and class IV in DPEP.* ORG Centre for Social Research, ORG-MARG, New Delhi.

———. 2006. *Mid-term Assessment Survey.* DPEP Districts ORG Centre for Social Research, ORG-MARG, New Delhi.

OXI-ZEN RESEARCH GROUP. 2008. *Teacher Absence and Student's Attendance in Primary and Upper Primary Schools of Mizoram.* Oxi-Zen Research group. Kolkata, West Bengal.

OU, D. 2013. Education for All: Quasi-experimental Estimates of the Impacts of Compulsory Primary Education in Hong Kong. *Asia*

Pacific Education Review. Vol. 14, No. 3. pp. 267–283. https://doi.org/10.1007/s12564-013-9271-z

Oza, D.J. 2006. *Gender Sensitization in Primary Schools of Gujarat on New Curriculum Structures Department of Education.* Faculty of Education and Psychology. The Maharaja Sayajirao University of Baroda, Vadodara.

———. 2006. *A Study on Gender Concerns in School Activities and Classroom Practices in Primary Schools Department of Education.* Faculty of Education and Psychology, the Maharaja Sayajirao University of Baroda. Vadodara, Baroda.

Padhi, U. 2006. *A Comparative Study on Scholastic Achievement of Class IV Girl Students of Residential and Non-residential Schools.* Institute of Media Studies. Bhubaneswar, Orissa.

Padhi, U. 2006. *Scholastic Achievement of Tribal Children at a Primary Level Whose Home Language is Different from Instructional Language.* Institute of Media Studies. Bhubaneswar, Orissa.

Pandey, K.P. 2005. *Classroom Observation Study.* State Council of Educational Research and Training. Lucknow, U.P.

Pandey S. 2008. *Evaluation Study on the Effectiveness of Meena Manches in Upper Primary Schools Gorakhpur.* Department of Education, Deen Dayal Upadhyaya Gorakhpur University. Gorakhpur, U.P.

Pandey, S. and R.N. Tripathi. 2008. *Mid-term Assessment of Pupil Achievement.* Midterm Marketing and Research Pvt. Ltd., New Delhi.

Patel, H.T. and R.R. Bhatnagar, et al. 2006. *A Study to Find out Reasons of Dropouts of Children and Processes Adopted Under Alternative Schooling.* Sardar Patel Institute of Economic and Social Research. Ahmadabad, Gujarat.

Patel, M. and A.P. Kaswekar. 2006. *Study of Gender Sensitivity of Primary School Teachers.* Shikshan Mahavidyalaya, Gujarat Vidhyapeeth. Ahmedabad, Gujarat.

Patel, M.K. and D.M. Patel. 2006. *Impact of District Primary Education Programme on Enrolment and Attendance of Boys and Girls*. Shikshan Mahavidyalaya Gujarat Vidyapeeth. Ahmedabad, Gujarat.

Patel, M.K. and J.G. Patel. 2006. *Classroom Observation in the Schools of SSA.* Districts Shikshan Mahavidyalaya, Gujarat Vidyapeeth. Ahmedabad, Gujarat.

Patel, M.K. and H.M. Patel. 2006. *Analysis of the Types of TLM and use of TLM by Student.* Shikshan Mahavidyalaya, Gujarat Vidyapeeth. Ahmedabad, Gujarat.

Patel. M.K. and L.P. Patel. 2006. *Impact of Teacher Training on Activity-based Participatory Teaching Learning Process in Classroom Transaction.* Shikshan Mahavidyalaya, Gujarat Vidyapith. Ahmedabad, Gujarat.

Poonam., A. 2014. Relationship of Burnout of Upper Primary School Teachers with Locus of Control. *Journal of Indian Education,* (February).

Prema, P. 2009. *Instructional and Nurturant Effect of Activity-based learning— An impact study.* Alagappa University Karikudi, Tamil Nadu.

Rajya Shiksha Kendra. 2003. *Rapid Assessment Studies.* Rajya Shiksha Kendra. Bhopal, Madhya Pradesh.

Rajput, S., A.D. Tewari and S. Kumar. 2003. *Development and Implementation of School.* Department of Measurement and Evaluation. NCERT, New Delhi.

Rao, G.L. 2005. *Terminal Assessment Survey DPEP-II. Development and* Research Services (p) Ltd., Secunderabad.

Rao, N.G.V.L., S. Singh, M.V. Kumar and A. Khan. 2008. *An In-depth Study of the Socio-economic, Academic and Other Factors Responsible for Low and High Enrolment, Retention and Achievement of Girls*. Development and Research Studies (DRS) Pvt. Ltd., New Delhi.

Rastogi, M. and R. Batra. 2008. *Impact Study of Residential Bridge Courses.* Under IED Bishop Cornard Memorial Hospital, Sitapur.

RESU, TSG-SSA. 2008. *Teachers' Absence in Primary and Upper Primary Schools of Andhra Pradesh, Madhya Pradesh and Uttar Pradesh, Research Evaluation and studies Unit*. Technical Support Group (TSG)-SSA, EdCIL, New Delhi.

———. 2008. *Attendance of Student in Primary and Upper Primary Schools a Study Conducted in 20 Major States.* Research Evaluation and Studies Unit, Technical Support Group (TSG)-SSA, EdCIL, New Delhi.

———. 2008. *Study of Students 'Time on Task Primary and Upper Primary Schools in 5 States.* Research Evaluation and Studies Unit Technical Support Group (TSG)-SSA, EdCIL, New Delhi.

———. 2008. *Scholastic Achievement and Literacy of Pupils at then End of Class IV in Karnataka.* Orissa and Uttar Pradesh, Research Evaluation and Studies Unit, Technical Support Group SSA, EdCIL, New Delhi.

Reddy, N.U. and K.S. Rao. 2006. *Elementary Education — Teachers' Opinions on Present Programmes and Activities.* A report SPO-SSA Office. Hyderabad, Andhra Pradesh.

Research and Documentation Team. 2004. *Community Perception on Education in North East Karnataka.* Azim Premji Foundation, Karnataka.

———. 2005. *Factors Affecting Success in Learning Guarantee Programme.* Azim Premji Foundation, Karnataka.

Right of children to free and compulsory education act. 2009. Government of India. New Delhi.

Rout, S.K. 2009. A Study of the Utilization of Educational Media at Primary Stage. *Indian Educational Review.* Vol. 45, No. 1.

Sahu, N. 2006. *Comparative Study of the Physical and Co-educational Environment in Government and Private Schools.* Navinchandra Mafatlal Sadguru Water Development Foundation. Chosala, Dahod, Gujarat.

———. 2006. *Study of Utilisation of Teacher Grant for the Preparation of Teaching-learning Materials.* Navinchandra Mafatlal Sadguru Water Development Foundation. Chosala, Dahod, Gujarat.

———. 2006. *Impact Evaluation of Free Textbooks Distribution on Enrolment and Retention of under Privileged Students.* Navinchandra

Mafatlal Sadguru Water Development Foundation Dahod. Gujarat, Chosala, Gujarat.

Salam S.N. and S. Mandal. 2005. *Assessment Study on the Status of Madhyamik Shiksha Kendras.* (MskS- the Institution for Upper Primary Level) State Project Office, Paschim Banga Sarva Shiksha Mission, Kolkata, West Bengal.

———. 2007. *Study on School Efficiency Cohort Study' 2005 at Primary Level.* State Project Office, Paschim Banga Sarva Shiksha Mission. Kolkata, West Bengal.

———. 2008. *Study on Teacher's Absence at Primary Level.* State Project Office, Paschim Banga Sarva Shiksha Mission. Kolkata, West Bengal.

Sangai, S. 2004. *A Study of the Role of EGS and AIE Centers in Universalising Elementary Education and in Mainstreaming the Children to Formal Schools.* Department of Elementary Education. NCERT, New Delhi.

———. 2007. *Children Language Improvement Programme.* Department of Elementary Education. NCERT, New Delhi.

Sangai, S., K.K. Vashishtha, U. Dutta, et al. 2002. *Universalisation of Elementary Education.* Search for Relevance Department of Elementary Education. NCERT, New Delhi.

SARED. 2009. *Effectiveness of ADEPTS Phase-1 Implementation in Gujarat.* State Executive Director, Society for Applied Research in Education and Development. Noida, Uttar Pradesh.

Sarkar, M. 2008. *Distribution of Free Textbooks and their Effect Jharkhand.* Education Project Council. Ranchi, Jharkhand.

Sarkar, S.S. and P. Baruah. 2008. *Effectiveness of Education Guarantee Scheme in Covering Out-of-school Children.* Dept of Business Administration, Tezpur University Napalm, Assam.

Savithri, M. 2005. *Impact of Residential Bridge Course/Non Residential Bridge Courses in Mainstreaming the Out-of-school Children.* Research and Evaluation Coordinator, State Project Office –DPEP/SSA. Hyderabad, Andhra Pradesh.

———. 2005. *Cohort Study on Enrolment and Drop out at Primary Stage (1999–2000 to 2003–2004) within Andhra Pradesh.* RandE Coordinator, SPO, DPEP/SSA. Hyderabad, Andhra Pradesh.

SCERT. 2005. *Comparative Study of Learning Achievement of Students in MAS.* State "L" of Educational Research and Training. Lucknow, U.P.

Sekhar, S., M. Nair, K. Prabhakar and P. Rao. 2008. *Study of Sarva Shiksha Abhiyan Initiatives on Universalisation of Elementary Education in Karnataka.* With Special Reference to Concerns of Quality UNICEF and Public Affairs Centre. Bangalore, Karnataka.

Shukla, P. (2003). *Study of the Training Needs of the Primary School Teachers with Reference to Effective Classroom Activities.* Govt. College of Education. Raipur, Jharkhand.

Shah, S.G. and R.B. Chaudhari. 2006. *Study on the Assessment of Actual Impact and Outcomes in Terms of Girl's Participation, Regular Attendance*

and Learning Levels. Gujarat Education Department, Veer Narmad South Gujarat University. Udhna-Magdalla Road, Surat, Gujarat.

Shah, V.K., I. Shah and A. Rawal, et al. 2006. *Causes of Low Enrolment and Drop out of SC and ST Girls in Primary Schools.* Sardar Patel Institute of Economic and Social Research. Ahmedabad, Gujarat.

Shah, B.M., G. Singh and K. Dabhi. 2006. *A Comparative Study of Birth Rate and Enrolment Rate of Children in Gujarat.* ORG Centre for Social Research (A division of AC Nielsen ORG MARG). Vadodara, Gujarat.

Shah, V.K., A.J. Raval and L.K. Shah. 2006. *Impact of the Intervention of DPEP on Enrolment, Retention and Quality of Education at Primary Level.* Sardar Patel Institute of Economic and Social Research. Ahmadabad, Gujarat.

Shah, V.K. 2003. *Impact of Teachers' Training.* Sardar Patel Institute of Economic and Social Research. Ahmadabad, Gujarat.

Shastri M.C. 2006. *Comparative Study of the Perception of Primary School Teachers in Government and Private Schools Towards Different Attributes of SSA Programme*. Department of Education, Gujarat University. Ahmadabad, Gujarat.

Sharma. C. and M. Phull. 2009. *Study on Teachers' Absence in Primary and Upper Primary Schools in Jharkhand.* Datamation Research Analyst, Delhi.

Sharma, M. 2007. *A Study of Teaching Learning Material Society*. Fin-Development of Humanity, Jabalpur.

Sharma, S.K. 2004. *Study on the Role of Village Education Committee.* In Sarva Shiksha Abhiyan SIEMAT. Bhiwani, Haryana.

Sharma, V.K. and B.K. Yadav. 2008. *Study of the Impact of Providing Cycles to Girl's Education.* In Upper Primary Schools SIEMAT. Bhiwani, Haryana.

Sharma, V.K. 2004. *To Study the Utilisation of School Improvement Grant in Primary and Upper Primary Schools.* SIEMAT, Bhiwani, Haryana.

Shukla, A. and R. Sanyal. 2008. *A Comparative Study of Achievement Levels of Girls of Kasturba Gandhi Balika Vidyalayas and Girls of Parishadiya Upper Primary Schools.* Dept of Education (IASE), University of Lucknow, Uttar Pradesh.

SIERT. 2006. *Rapid Achievement Survey*. With reference to BAS and MAS under DPEP Phase-II SIERT, Udaipur.

SIEMAT and State Project office. 2009. *Cohort Study State Project Office.* Shimla, Himachal Pradesh.

Singal, N. 2006. Inclusive Education in India: International Concept, National Interpretation. *International Journal of Disability, Development and Education.* Vol. 53, No. 3. pp. 351–369. https://doi.org/10.1080/10349120600847797

Sinha, S. 2005. *Quality Improvement Programme, District Primary Education Programme (DPEP), Andhra Pradesh.* A Case Study Department of Elementary Education. NCERT, New Delhi.

Singh, K.U., R. Gupta, S. Sharma, R. Sharma and J. Vijay. 2007. *Exploratory Study of Functioning of DPCs, BRCs and CRCs Management of*

Sarva Shiksha Abhiyan in Rajasthan. Centre for Development, Communication, and Studies, Jaipur.

———. 2008. *Terminal Assessment Survey for DPEP Phase H Districts of Rajasthan.* Centre for Development, Communication, and Studies, Jaipur.

Singh, M. 2009. *A Study of Classroom Transactions in Elementary Schools* of *Punjab*. Punjabi University. Patiala, Punjab.

———. 2009. *Teachers' and Students' Absence in Primary and Upper Primary Schools.* Department of Social Work, Hiwain University. Patiala, Punjab.

Singh, P.N. 2008. *Impact Study of the Implementation of Radio Programme in Jharkhand*. Asian Development Research Institute. Ranchi, Jharkhand.

———. 2008. *Impact Study of the Implementation of Yoga-Vipassana Education in Schools in Jharkhand*. Asian Development Research Institute. Ranchi, Jharkhand.

Singh, R.S. and N. Pandey. 2007. *Utilisation of Grants Bihar.* Education Project Council. Patna, Bihar.

———. 2007. *Studies on the Drop–out, Repetition and Completion Through Cohort Child Tracking Method.* Bihar Education Project Council. Patna, Bihar.

———. 2006. *Terminal Assessment Survey Bihar.*Education Project Council. Patna, Bihar.

Singh, V. 2009. *Teachers 'and Students' Absence Under Sarva Shiksha Abhiyan in Bihar.* Jagjivan Ram Institute of Parliamentary Studies and Political Research. Patna, Bihar.

Singh, V.P. 2008. *Effectiveness of Hands-on Activities in Science in Enhancing the Teaching Skills of Elementary School Teachers*. Office of the UEE Mission, Delhi.

Singh, U.K. 2005. *Study of the Quality and Impact of the Training Modules and the Training Programme under DPEP.* Phase-I for Resource Persons/trainers Rajasthan and Council of Elementary Education. Jaipur, Rajasthan.

Smith, W.C. and D.K. Joshi. 2016. Public vs. Private Schooling as a Route to Universal Basic Education: A Comparison of China and India. *International Journal of Educational Development*. Vol. 46, pp. 153–165.

Social and Rural Research Institute – IMRB International and RESU. 2009. *National Sample Survey of Households for an Estimate of Out-of-school Children.* Social and Rural Research Institute and Research Institute (SRI-IMRB) and Research, Evaluation and Studies Unit Technical Support Group – SSA, EdCIL, New Delhi.

Somashekar, T.V. 2011. *Second Half Yearly SSA-RTE Monitoring Report of Bidar, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2012a. *Third Half Yearly SSA-RTE Monitoring Report of Gadag, Karnataka.* Mysuru: Regional Institute of Education (NCERT).

———. 2012B. *Fourth Half Yearly SSA-RTE Monitoring Report of Chikkodi, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2014A. *First Half Yearly SSA-RTE Monitoring Report of Ramanagara, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2014B. *Second Half Yearly SSA-RTE Monitoring Report of Havery, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2014A. *First Half Yearly SSA-RTE Monitoring Report of Bangaluru Rural, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2014B. *Second Half Yearly SSA-RTE Monitoring Report of Ballari, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2015A. *First Half Yearly SSA-RTE Monitoring Report of Dakshina Kannada,* Karnataka. Regional Institute of Education, NCERT, Mysuru.

———. 2015B. *Second Half Yearly SSA-RTE Monitoring Report of Yadagiri, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2015A. *First Half Yearly SSA-RTE Monitoring Report of UttaraKannada, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

———. 2015B. *Second Half Yearly SSA-RTE Monitoring Report of Vijayapura, Karnataka.* Regional Institute of Education, NCERT, Mysuru.

Soni, R.B.L. 2005. *The Problem of Retention of Learners as Perceived by Teachers and Community with Reference to Classroom Processes in Northeastern States.* Department of Elementary Education, NCERT, New Delhi.

———. 2005. *Interventions for the Education of Children with Disabilities.* Department of Elementary Education, NCERT, New Delhi.

———. 2008. *Special Provisions for the Education of SC children.* Under SSA Department of Elementary Education, NCERT, New Delhi.

———. 2003. *Perceptions of Parents, Teachers and Students about the Education of Disabled Children.* Department of Elementary Education, NCERT, New Delhi.

Srivastava, R., A. Pandey and D. Srivastava. 2008. *Assessment of Interventions Made to Meet the Educational Needs of SC/ST Children in SSA.* Pratham UP Education Initiative, Allahabad, Uttar Pradesh.

SSA Rajya Mission. 2008. *Cohort Analysis State Project Office SSA.* Rajya Mission Agartala, Tripura.

State Project Directorate. 2006. *A Study on Students' Achievement at the End of Primary Level.* SSA, Tamil Nadu, Chennai.

Sudhir, M.A. 2003. *Intervention Strategies for Out-of-school Children Mobilising Community Resources.* Department of Applied Research, Gandhigram Rural Institute, Chennai.

Subramanyam, U. 2009. *Case Studies for Capturing the Impact of Sarva Shiksha Abhiyan in Andhra Pradesh.* The Indian Institute of Economics. Hyderabad, Andhra Pradesh.

Tondeur, J., L.H. Kershaw, R. Vanderlinde and J. Van Braak. 2013. Getting Inside the Black Box of Technology Integration in Education: Teachers' stimulated Recall of Classroom Observations. *Australasian Journal of Educational Technology*. Vol. 29, No. 3. https://doi.org/10.14742/ajet.16

Uma, L., C.R. Prabha. K. Kranthisree. S. Suneela and Praneetha. 2006. *Levels of Scholastic Achievement of Rural Elementary School Children the Role of Classroom Teaching Practices.* Dept of Human Development and Family Studies. Acharya N.G. Ranga Agricultural University, Saifabad, Hyderabad.

UNESCO. 2005. *Guidelines for Inclusion: Ensuring Access to Education for All.* Paris: UNESCO.

Upadhyay, G.C. 2003. *A Study of Processes and Effectiveness of Linkages Between ECCE and Primary Education.* Department of Elementary Education, NCERT, New Delhi.

Verma, J. 2005. *Innovative Teaching Strategies for Promoting Inclusive Education.* Department of Education of Groups with Special Needs, NCERT, New Delhi.

———. 2004. *Role of Parent Teacher Association for Promoting Inclusive Education.* Department of Education of Groups with Special Needs, NCERT, New Delhi.

———. 2002. *An Evaluation Study of Integrated Education for Disabled Children.* Department of Education of Groups with Special Needs, NCERT, New Delhi.

Venkatesh, M.N. 2006. *An Evaluation of the Schemes and Programmes of Inclusive Education of the Disabled Children in Karnataka.* Department of Folklore and Tribal Studies, Dravidian University Kuppam, Chittoor District, Andhra Pradesh.

Verma, V. 2007. *Study on the Teaching of Mathematics and English with Reference to Class VI and VII.* Vimarsh, Bhopal.

Vinavak, S. 2004. *Evaluation of the ECCE Programme in DPEP.* Districts of Uttaranchal Society. action. Vision and Enterprise, Lucknow, Uttar Pradesh.

Wyse, D. and H. Torrance. 2009. The Development and Consequences of National Curriculum Assessment for Primary Education in England. *Educational Research*. Vol. 51, No. 2. pp. 213–228. https://doi.org/10.1080/00131880902891479.

Yadav, B.K. 2004. *To Assess Utilisation of Teacher Grant and Its Impact on Elementary Education.* SIEMAT, Bhiwani.

Zimlich, S.L. 2015. Using Technology in Gifted and Talented Education Classrooms: The Teachers' Perspective. *Journal of Information Technology Education: Innovations in Practice*. Vol. 14, pp. 101–124.