

Inclusive Education

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INTRODUCTION

The dictionary meaning of 'inclusion' is – to take in, or consider as part, or member of or to embrace. Inclusion is about membership and belonging to a community. In context to education, it is restructuring schools as communities where all children can learn. Teachers provide for more options for children as ways to learn. But there is no standardised procedure or recipe to make teachers and schools inclusive. The general philosophy of inclusive education provides for good teaching practices, healthy relationship between teacher and students, to improve the quality of education for all children in a classroom and help the development of all children in different ways. All children can do well when the regular classroom environment is adjusted to meet their individual needs. The education system has to be reengineered to respond to the pupils' diversity.

THE CONTEXT AND CONCEPT

The impetus for both integration and inclusion comes largely from a concern for the rights of children and young people with special educational needs. It is paradoxical, that the moment we think of providing resources for equal access, it inevitably results in identification leading to segregation of those children who are different and have special educational needs.

In India, history evidences the natural mainstreaming of children with disabilities. Since there were no special techniques available to deal with their disabilities, they naturally

became a part of the society. Later, as the wisdom prevailed, people became more sensitive towards the identification of special needs of children and youth and that eventually led to their exclusion. Now when we are talking about inclusive education, there is a reason to think why to have an education system which presumes exclusion?

The concept of inclusion has emerged from the ideas of providing equal opportunities to 'all' children. Providing equal opportunities does not mean providing 'similar' things to all children. It means providing equal opportunities keeping in mind the diverse nature of their individual needs. We need to acknowledge the responsiveness to diverse needs of 'all' children. The perception that some children are normal and others are deficient and therefore need to be repaired in some way is still a concomitant of a society that values uniformity rather than diversity. In a society when the children are given a right to belong, they are also given a right to their diversity. Thus, belongingness is a right and not something that children with disabilities must earn. Providing support to students with disabilities so their inclusion can be socially and academically meaningful is the challenge teachers face in inclusive programmes.

Meaningful inclusion cannot be accomplished by special education teachers working alone, it also does not help in having a temporary 'deal' with the regular school teachers to 'take care' of their students. Meaningful inclusion in schools requires that administrators, teachers and parents not only value diversity, but also question the traditional ways we segregated students who are difficult. Collaboration – ongoing, mutual and active exchange within a

team – is the spark that ignites successful inclusion, the ideas that come from teams supply the fuel to make inclusion operate. Teams involve members who, share their many skills and perspectives, are special education teachers, teachers in general education, parents, paraprofessionals, related services personnel, administrators, the students and the peers.

The Indian figures reveal that 20 million children in the age range of 6 to 14 years require special needs education, while national average of gross enrolment in initial grades of primary education has crossed 90% mark, less than 5% of children with disabilities have reached the school system. The Gross Enrolment Ratio (GER) at the Primary stage has exceeded 100 per cent. Access to schools is no longer a major problem. At the primary stage, 94% of the country's rural population has schooling facilities within one kilometer and the upper primary stage, it is 84 per cent. This indicates that our country has made impressive achievement in providing access to elementary education. But the flip side is that out of the 200 million children in the age group of 6 - 14 years 59 million children are not attending schools. Of this, 35 millions are girls and 24 millions are boys. These figures include the population of disadvantaged, tribal and the disabled.

The mandate of *Sarva Shiksha Abhiyan* (SSA) is to provide useful and quality elementary education to all children in the age group of 6-14 years by 2010. The SSA also focuses on the education of the special groups – “There will be focus on the educational participation of children from SC/ST, religious and linguistic minorities, disadvantaged groups and the disabled children. Experience and research shows that education in special and segregated schools does not provide support for the all-round development of the individual (Uppal and Dey, 2001).

Thus, in India, education for the disabled has been a priority area and a great amount of thinking and inputs have gone into ensuring that this section of population is not marginalised when it comes to facilitating development and accessing the resources for human resource development. It is presently estimated that 12.5 million children with disabilities are to be provided education in the

school system. The educational needs of such children are met through a variety of institutions working at various levels, which include special schools, integrated schools, vocational centers and polytechnics besides the opportunities in the mainstream of education. A review of the historical development of the policy framework reveals that the education of the disabled has received adequate weightage from time to time. But, the implementation of the policy and the progress made in this regard has not been very encouraging. There still exist, more than 3000 residential special schools to address to the special needs of 1,00,000 children with disabilities. The efforts are mainly made by the NGOs and they believe that it is easier to generate funds for special schools rather than for inclusive schools. The contributions of NCERT with launching of Integrated Education of the Disabled under the UNESCO “Project Integrated Education for the Disabled (PIED; 1987) led to the realisation that integrated education was a cost effective approach, and with this the enrolment rate of children went upto 91 percent. The retention rate of such children was higher than their non-disabled counterparts. The achievement of the children with disabilities was at par with the non-disabled children. Since then, the general education system has started accepting children with disabilities in the general schools. So far, approximately 90,000 children with disabilities have benefited from this approach through 18,000 general schools across the country. Further impetus has been provided by the District Primary Education Programme (DPEP). Inclusive education in the general schools is a forward looking and an explicit approach. It has been observed that children with mild and moderate disabilities are more in number than those with severe and profound disabilities. Thus, their inclusion in the general stream would reduce the risk of school dropout.

INCLUSIVE SCHOOLING

The movement towards inclusive schooling gained momentum with the World Declaration of Education for All (1990) at Jomtein wherein it was emphasised that the learning needs of the disabled demand special attention within

the Framework of Education for All. In 1994 at the World Conference at Salamanca a Framework for Action was adopted that promoted integration and participation of persons with disabilities to combat exclusion.

In India, the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 enjoins upon the Government to ensure that every disabled child has access to free education in an appropriate environment till the age of 18 years and inter alia provides for setting up of special schools, facilitation for imparting special education and education through open schools/universities to disabled children, organising teacher training programmes, taking steps for adaptation of curriculum, reform of examination system, promoting research and providing various facilities to disabled children.

Inclusive schooling is often thought of as the inclusion of all students regardless of ability into the same schools and classrooms with peers who are not considered to have disabilities. Inclusive schooling, however, extends far beyond mere physical proximity to provide students the support required to belong and achieve in a classroom. Inclusion is both a process for and outcome of understanding, acceptance and valuing of differences among to-day's school children and youth. It is both a process and an outcome for achieving social justice and equity in the society.

Providing support to students with disabilities so that their inclusion can be socially and academically meaningful is the challenge teachers face in inclusive school programmes. Meaningful inclusion in schools requires administrators, teachers and parents not only to value diversity, but also question the traditional practice of segregating students who are different.

The World Bank in its technical paper on "Provision for Children with Special Educational Needs in the Asia Region (1994)" reported that the development of Inclusive Primary Education is the best option for achieving education for all in the Asian Region where school enrolment rates are still lower than 70% in some countries and where most disabled children receive no schooling at all. An estimated 130 million "forgotten" children in developing countries, the majority girls, are without any kind of basic or

primary education. According to the report : if segregated special education is to be provided for all children with special educational needs, the cost will be enormous and prohibitive for all developing countries. If integrated in - class provision with a support teacher system is envisaged for the vast majority including children with special educational needs, then the additional costs can be marginal, if not negligible.

Schools need to be provided with full range of resources necessary to deliver a full curriculum for all children, through a combination of class teacher, specialist, semi-specialist, resource teacher, consultancy and ancillary staff, as necessary. That need not mean more staff overall than at present. It is rather a question of improved and more differentiated quality than greater quantity.

Inclusion as it is happening in India can be viewed from three perspectives :

- Physical inclusion
- Social inclusion
- Cognitive inclusion

Physical inclusion receives consistent promotion, support and facilitation from the government. All the policies and government regulations have made education free and compulsory for all children. No institution can deny admission to a child with disability on account of his/her disability. The Universalisation of Elementary Education (UEE) focuses on Enrolment, Retention and Achievement of all children. In case of children with disabilities all three are difficult, whereas in general population, enrolment has been achieved upto 95% but retention and achievement are still far below the expected levels.

Social inclusion is only happening in sections of the society. In the lower socio-economic strata, research studies have revealed that there is greater acceptance of Persons With Disabilities (PWD) with minimum expectations from them, whereas people from economically upper and affluent class of society have high expectations from PWD and for acceptance they often do not move beyond denial (Bhan, Mehta, and Chhaproo, 1998). Gradually, the efforts are being made by educating people through direct instruction and media to bring attitudinal changes in the society.

Cognitive inclusion is tried out by the educational institutions by allowing the children with special educational needs to study in general classroom with non-disabled children. But at very few places only, the cognitive inclusion takes place in its true sense. Cognitive inclusion is possible only if the subject matter is broken down into smaller learning units and teacher makes sure that each of the micro units of a lesson is learned by all children to the expected level of mastery. Each child is given equal opportunity to learn, understand, retain and reproduce the information at an appropriate time and in an appropriate manner.

Though inclusion of all the three types is being aimed at, and the efforts are directed towards achieving it, there is a serious problem of its accessibility, one can view access from three dimensions :

- Physical access
- Cognitive access
- Supportive access

If inclusion is to be achieved in its true sense, it emerges as an equation:

Access + Involvement + Commitment = Inclusion

In India the major hurdle is physical access. To provide for physical accessibility one needs greater financial and material resources. The legislation emphasises physical accessibility but due to limited financial resources physical accessibility has not even reached 30% mark. All the public places, institutions, modes of transport do not provide for physical accessibility. This affects the mobility and quality of life of the PWD. Despite the fact that the Government and the NGOs are continuously involved in improving accessibility, due to the constraints, inclusion is not achieved to the extent it should have been.

The cognitive access is restricted to very few schools because the teachers in the general schools are not trained to manage and deal with the special educational needs of children with disabilities. The administrators in the Government and Semi-Government Schools do not necessarily have training to deal classroom problems academically. The National Council for Teacher Education (NCTE) and the Rehabilitation Council of India (RCI), both statutory and regulatory bodies, are making efforts to streamline the education and prepare

personnel and professionals to make the cognitive access feasible.

In the rural areas, to make cognitive access possible, motivated men and women are identified from the grassroot level and are trained to handle special needs of children with disabilities in a variety of situations. Since these people are from that area they have greater acceptability from the PWD and they are in a better position to understand their needs and respond effectively.

Supportive accessibility is more restricted to the cities and the urban areas. The technological advancement has not been able to reach the villages. Moreover lack of awareness about the resources in villages causes an additional disadvantage. Technological advancement has made supportive access reachable in the urban areas to the blind, hearing impaired, and locomotor handicapped in the form of electronic braille, specialised software to learn language and other subjects, not so in villages.

DIRECTED EFFORTS

As discussed earlier inclusion is a human right, which can be achieved by enhancing the potential of persons with disabilities through adequate procedures of identification, assessment, intervention and rehabilitation. Since rehabilitation is considered to be the process designed to assist the disabled individual in realising his full physical, mental, social, economic and educational potential, the inclusion of persons with disabilities is tried out through their appropriate rehabilitation. Consequently, substantive efforts have been made by the governmental and non-governmental organisations, including educational institutions and institutions of higher learning, for implementing inclusive education in their respective geographical areas.

The fight for rights of the disadvantaged has been a major concern of Indian Government. In the 29th General Conference at Paris, where India offered to set up an International Centre for Inclusive Education to provide necessary help and facilities to persons with disabilities (PWD) from the Asia-Pacific Region. The UNESCO released an initial Grant of US \$ 2,60,000 for setting up this Centre in India. The centre has

presently been set up in the NCERT with major objectives of facilitating implementation of inclusive education in India by information exchange and networking, providing consultancy, capacity building, research and development besides focussing on necessary curriculum development and adaptation, teacher training and educational management.

Education of the disabled has been the major interest and activity of the NGOs. Therefore, for inclusive education too NGOs have taken the initiative and come forward to help PWD to be included in the mainstream. From education to social and vocational rehabilitation all have been taken up by the NGOs. For operationalisation of inclusive education in India there appears to be a great discrepancy between what is and what ought to be done i.e. – reality and the ideal. Ideally to achieve optimum inclusion, the general education system should be able to absorb all students with disability effectively. But general education system is still not sensitive and effective enough to address to the special educational needs of the students with disabilities.

In India, different models of inclusion are being practiced. The selection of a model is based on the resources available in that particular region. Full inclusion is rarely practiced in educational institutions. Mostly resource models with variations from residential to itinerant models are being practiced in various parts of the country. Though all these implementing strategies have been largely accepted, none of them has been proven scientifically or objectively. The duplication of a model in other areas depends upon its success and feasibility in a particular area. Since the programmes are so scanty and scattered over regions no research has been attempted to test the effectiveness of one model over the others. Some programmes in the country are being run as projects supported by foreign funding agencies. The success story of one project leads to expansion of the project in other neighbouring areas with higher grants.

Generally the success of an inclusive education programme is determined by the rate of enrolment and retention of students with disabilities in the general schools. It has been reported by the implementing institutions that the dropout rate has been reduced among the

children with disabilities. To judge the success of inclusive education programme merely on the basis of the enrolment and retention is a misnomer. Mere physical inclusion is not enough for children with disability. The degree of inclusion varies from disability to disability. Minor adaptations and modifications in the curriculum and teaching strategies might facilitate inclusion of children with physical and sensorial impairments. Children with intellectual impairments are not readily accepted for inclusion because they require major alterations and adaptations in all the academic programmes. Moreover, the schools also do not have special programmes to promote social inclusion of such children. Therefore, the institutions, which claim to be practicing inclusive education do not provide for total inclusion of all children.

EVALUATION OF INCLUSIVE EDUCATION PRACTICES IN INDIA

A pioneering work has been done by Ram Krishna Mission Vidyalaya, College of Education in Coimbatore. According to Mani (2000) in his book on inclusive education, the ideal system of inclusive education is that the general education system should assume responsibility for the education of children with disabilities but the reality is different in India. The general education system is yet to be fully sensitised to the educational needs of children with disabilities and therefore the general system needs the assistance of specialist teachers for occasional help to make inclusive education work. The concept of 'dual teaching model' is synonymously used as inclusive education today and the terminology 'multi-skill teacher plan' is referred, at present, as 'multi-category' system.

A few projects supported by Cristoffel Blinden Mission (CBM) in South India (Coimbatore and Adilabad Districts) are attempting to provide inclusive education and comprehensive rehabilitation services to persons with disabilities through grassroot level and community level workers. The initial results of these projects are highly encouraging as the community level workers are able to provide appropriate services to children with all disabilities in the locality with the maximal assistance from specialists. Dependence on

grassroot level workers, thus, is becoming vital for augmenting inclusive education services in India. It has been observed that wherever inclusive education programmes in India have been started, they are doing quite well. What is needed now is the expansion and enrichment of the existing inclusive education programmes.

Mani (2000) reported that the experiences of inclusive education programmes assisted by various organisations in India, are encouraging. He reports : The Inclusive Education programmes increase the enrolment of disabled children in both rural and urban areas. As reported, approximately 80,000 children with disability are educated in the 18,000 general schools of the country. Though these numbers look very big but the figures are far from adequate considering the population of the children with disability. A greater awareness has been observed in the parents of the children with disability with regard to the educational facilities available for their disabled children. However, the parents of disabled girls need more awareness so that the disabled girls can also be brought to the schools. Some of the specific observations are as under:

- The retention rate among the disabled children has been reported high as compared to the non-disabled children.
- The teachers in the general schools are getting sensitised toward the individual learning needs of both children with and without disabilities. Majority of the teachers feel that they are becoming better teachers by including children with special learning needs in their class.
- The children with all their disabilities barring the mentally retarded perform at par with their non-disabled peers in inclusive settings.
- The administrators and managers are open to admitting children with disabilities in their schools, they are willing to provide necessary support to the general as well as resource teachers.
- Parents of children with special needs prefer inclusive education programmes for their children rather than sending them to special schools. They also feel that inclusive schools are good source for creating awareness in

the community about persons with disabilities and their special needs.

- Both children with and without disabilities develop healthy personal and social relationships with each other. It facilitates the harmonious development of their personalities.

RESEARCH TRENDS

It is difficult to say whether any specific direction in research could be seen in the area of inclusive education. Researches that have been conducted in the areas of special education and integrated education could also be considered as revelation of research trends in inclusive education. Inclusive education so far, has been more an area of practice than research. Since the efforts made by the institutions in the area of inclusive education are so few in number that they can be counted on fingers. Such practices have emerged from experiences more because of its humanistic nature than as a necessity. Ever since the legislation has been passed with the proclamation of PWD Act in 1995, people in general, teachers, managers and researchers have expressed their concern about the inclusion of persons with disabilities in all aspects of life.

The focus in the researches is extremely varied, covering the target group of parents, families and communities to the general and special schools. The studies, which have focused on specific disability areas and giftedness, have been reported under the broad heading of special education. Researches that have identified samples of PWD from the general population of either schools or places of work where PWD and persons without disability learn and work together, have found their place under the heading of integrated education. Only those researches could be put under the umbrella of inclusive education, which have used the word "inclusive education", "inclusive" or "inclusion" in its title. Most of the researches in the area of inclusive education are action researches. Moreover, very few have been reported and documented. Therefore, it is difficult to say that if any trend could be seen in the researches on inclusive education.

Basically three types of researches have been noticed :

- Researches in Integrated Education
- Researches conducted in the mainstreamed class/settings
- Researches on inclusive education

Researches in Integrated Education: The researches that have been published under the realm of integrated education have focused on the samples of persons with mild to moderate visual impairment, hearing impairment, locomotor disabilities and learning disabilities. Because severely and profoundly handicapped children are found only in special schools and adults in sheltered vocational settings, these groups have totally been cut off from the researches in integrated education.

According to Jangira (1985) most developing countries visualise integrated education as an expedient measure to reinforce efforts to improve access to school as a part of universalisation of basic education. Punani and Rawal (1995) discussed the advantages and limitations of integrated education. According to them all modes of education in India are collectively covering only 8 percent visually impaired children of school age. Advani (1992) reported that special schools for visually impaired are quite limited in numbers and support services are painfully inadequate.

Researchers have also tried to determine the cost effectiveness of integrated education. The cost of education not only depends on resource mobilisation but also on the efficient use of resources. An important aspect of cost effectiveness is the planning of the programme and its service delivery system (Ayyar, 1993). Researches have reported lower cost of integrated education against special education for children with visual impairment because there is no investment in building, no maintenance of hostels (Fazelbhoy, 1989), not an additional burden (Sharma, 1988) and it emerges as the cheapest, logical, practical, viable and educationally sound option. Advani (1990) expressed contradictory view and stated that integrated education in the Indian context is not as cost effective as it is considered. If expenditure on resource room, material, salary of teachers and other incidental expenses are considered, the cost difference between residential schools and integrated education programme would not be significantly large.

There has also been a debate on the effectiveness and extent of integration. Integration enhances the social acceptance (Jangira, 1985) as the child has the advantage of being in an atmosphere and environment, which he shares with his sighted peers (Fazelbhoy, 1989). Mathur (1985) reported that children with visual impairment do not develop hostility and aggressive behavior if taught in integrated setting.

Punani (1996) reported that integrated education enhances social integration and social acceptance of the students with visual impairment. Integrated education cannot be successful without the active participation of parents, general educators and school administrators. A general view of the parents and educators of the visually impaired is that since a child is eventually expected to live in community, it is essential to provide education in the integrated set up rather than in a residential school. Integrated education encourages the family to feel and assume its responsibility towards the child instead of shifting it largely to the institution.

Researches have been conducted to evaluate the quality and effectiveness of teaching of school subjects in special and integrated settings. Gupta and Singh (1994) studied the status of science teaching in Indian schools for the Visually Impaired children. 189 integrated and 407 special schools from all over India were used as sample to mail questionnaire. Only 29 schools both special and integrated responded to the mailed questionnaire, which finally constituted the sample. Researchers concluded that the quality of science teaching for visually impaired was much below the expected standards in both types of schools.

Lali (1995) conducted a comparative study of the scholastic performance of the visually handicapped pupils studying under the integrated system with that of the normal pupils in classes VIII, IX and X in secondary schools of Kerala. Jaywant and Phatak (1995) carried out an exploratory study of deaf children in integrated units of normal schools in Pune.

Sharma (1997) conducted a study to find out the effectiveness of a modified instructional material in science for teaching difficult concepts to hearing impaired children studying in Classes

II-V in integrated and special schools. The findings revealed that the adaptation of the instructional material enhanced the level of performance of the subjects with hearing impairment. Children from integrated school performed better than those studying in special schools.

Punani (1997) documented the comparative effectiveness of different modes of education of the visually impaired with respect to a number of predetermined objectives. The sample comprised a total of 130 visually impaired children of these 50 children were from integrated education, 26 were from semi-integrated education and 54 from residential schools. Their age ranged between 10-15 years who were studying in Classes IV, V and VI. The study found (i) integrated education to be more effective than residential education (ii) no difference in the coverage of congenitally blind children in the three modes of education (iii) semi- integration was most effective in enrolling the children who had it.

Research Studies in the Mainstreamed Class:

The review of researches has revealed that a large number of studies on students with disabilities have been conducted in the mainstreamed classes and have been documented under the heading of Special Education. Considering the fact that the mainstreamed settings could be treated as inclusive settings, those researches have been selected for this section. According to the National Survey at least 10% of the population of the disabled is found in the general schools, and they have learning difficulties due to their disabling conditions. Hence, a large number of researches at the doctorate and masters level have selected samples of children with disabilities from mainstreamed schools. There are many children with disabilities who study in mainstreamed classes, either because there are no special schools for them or their problems are such that with the help of the resource teachers, they can cope with regular school curriculum.

Learning Disabilities are primarily school related. There is a class of children, who generally fail, but have no apparent deficit in their psychological make up and are not mentally retarded. Learning disabled students

bring a configuration of skills and abilities of instructional negotiations that is more like that of normal children but younger to them in age i.e. they lag behind their peers with respect to their skills and abilities. Such children are often found in the general schools since there exist no exclusive schools for children with learning disabilities, therefore, almost all the researches that have been conducted in the area of learning disabilities have drawn samples from general schools. Some of the studies done in the area of learning disabilities are reported here to present a research scenario in the field.

Swarup and Mehta (1991, 1993) have developed a series of diagnostic tests of learning disabilities for the children in the age range of 8-11 years. The tests called 'The Behavioural Checklist for Screening the Learning Disabled' (BCSLD); The Diagnostic Test of Learning Disabilities (DTLD), and Swarup-Mehta Test of Thinking Strategies (TTS) can be administered by the school teachers in their regular classes. The tools have been very extensively used by the researchers from the field of education, special education, psychology and medicine. Even para-medical professionals such as occupational therapists and speech therapists have also used these tools for identification of the LDs from general classrooms.

Researchers have also felt need for the development of indigenous diagnostic tests. Other standardised diagnostic tests that are available are Diagnostic Test of Reading Disorders (DTRD) (Swarup and Mehta, 2003), Low cost Diagnostic Kit of Mathematical Disability (LMD) children aged 7-9 years (Swarup, Rodricks and Mehta, 1999).

Prasad and Srivastava (1992) studied the perceptual motor problems of LD and NLD children in the age range of 5-10 years. The sample was selected from various types of schools such as convent schools with superior physical facilities and Nagarpalika schools with very poor infrastructure, from both rural and urban areas. The results implied that the children who are poor in perceptual skills are also inferior in their academic performance.

Sharma (1993) attempted to examine the difference in the personality characteristics of the learning disabled (LD) and the non-learning disabled (NLD) children identified in Std III, IV, and V from urban and rural localities of the four

districts of Rayalaseema, Andhra Pradesh. The study also assessed the efficacy of intervention programmes developed specifically for parents, teachers and the LD children in improving the academic performance and children with varied learning disabilities.

Swarup and Sharma (1993) studied the effect of cognitive – behavioural training on the written syntax of the learning disabled children in the age range of 10-14 years. The study showed implications in terms of creating an awareness of learning problems in syntax faced by the students in the normal school set-up. Further it focused attention on the need for specific instruction, modeling, immediate feedback in writing tasks and practice in free expressions of writing, so that the children master the necessary skills.

Mehta (1994) in her Ph. D. study, overcoming learning disability by developing thinking strategies through meta-cognition, reported that the students studying in IV standard were average intelligent, but scholastically backward. Results and analysis indicated that (1) strategy training programme was effective in improving thinking skills of the subjects (2) training in meta-cognitive strategies spilled over to academic areas and resulted in an improved performance in the other curricular areas, specially language and mathematics.

In primary schools of Agra, Sethia, Sinha and Sharma (1993) studied the recall process of pervasively hyperactive (PH) and non-hyperactive (NH) children in the age range of 8-10 years for attended and non-attended words. Saxena (1995) studied the temperamental traits of slow learners both boys and girls studying in Class IX of 35 higher secondary school of Jaipur city, and found sex differences in the development of temperamental traits.

Sethia, Sinha and Saxena (1994) identified a sample of 20 LD and 20 NLD children from various schools of Agra and studied controlled processing among learning disabled children. Learning Disabled were found to be deficient in controlled processing.

Bose (1996) assessed the effectiveness of computer programmes as remedial strategies for overcoming specific learning disabilities. Computer-based learning resulted in enhancement of performance by 5% in Math and

7% in English. The Experimental group showed higher gains than the control group.

Gupta, et al. (1996) studied the incidence and nature of learning disabilities at the end of Class II and evolved preventive strategies. They reported 7% incidence of Learning Disability at Grade III level in Government primary schools of Sehore block of Madhya Pradesh. All the subjects identified as LD in a general class showed deficits in Hindi, oral reading and comprehension, written expression; and in arithmetic, deficiencies were observed in mathematical operations, seriation, visual spatial orientation, auditory sequential memory, concept formation, verbal, numerical, temporal relationship and visual auditory association.

Vasanthi (1996) studied mathematical learning disabilities in children of Standard VII in the age group of 11-13 years from Govt. matriculation and central schools who were monolingual, bilingual and trilingual. The study established the relationship between mathematical learning disabilities and psychological factors viz, intelligences, extraversion, neuroticism and behaviour problem, education factors such as linguistic pattern institutional and curricular differences. Variations in the type and extent of mathematical learning disabilities were reported to be influenced by the variations in socio-economic status of the students.

Aminabhavi (1996) studied the adjustmental ability of post-graduate physically disabled and abled students, from the colleges of Dharwad and Belgaum. Physically disabled were maladjusted with respect to family, emotion, mode and leadership aspects.

Kamalam (1996) carried out a study in the primary schools of Tiruverumbur Block (Rural area) in Trichy district. The study focused on the capacity building of the teachers in educating the mild mentally retarded. The teachers gained knowledge about MMR after training. Paranjpe (1996) compared the achievement in language and mathematics of normal and hearing handicapped pupils studying in Class IV of five general schools in Pune. Achievement in language was different in children with and without hearing impairment. Sex did not yield difference in performance within the two groups. Hearing impairment

students integrated after special schooling and performed better in Math than those who were already in the mainstream.

Ramalingam (1996) conducted a study on development and effectiveness of a strategy-training programme for cognitive learning (memory, comprehension and problem solving) among the learning disabled, non-learning disabled and slow learners. Sample consisted of 54 students of Standard IV of three general schools. Results of the study indicated that strategy training had a positive significant effect on the test of cognitive learning among all the groups.

Vaijyanthi and Meera (1997) studied the academic problems of the learning disabled children in the primary schools. A sample of 120 learning disabled girls and 120 boys was selected from 34 general schools located in Coimbatore. The study reported common behaviours, and problems faced by LD boys and girls in different types of schools and classes.

Arya, Venkatesan, Prakasan and Hema (1997) estimated the prevalence of disability and impairments among pre-school children in rural areas. They studied the significant socio-demographic variables that influenced the prevalence rates of disability among pre school children in rural areas.

Umadevi (1997) studied the effectiveness of remedial programme on improving reading comprehension skills of dyslexic children studying in Standard IV of English medium schools in Devangere city. The results of the study yielded significant positive improvement in the reading comprehension skills of the subjects. Edwin (1997) aimed at promoting learning in secondary level science concepts through self-contained modules for slow learners, studying in secondary schools of Gulbarga city. The results indicated higher levels of learning by the slow learners.

Geetha (1998) developed a remedial package and assessed its efficacy in augmenting primary school teachers' skill to help dyscalculic children. The sample of dyscalculic children was identified from Standard I to V. The package was found to be effective for teachers' use in facilitating learning of children with dyscalculia.

Julka (1998) studied teacher empowerment and successful mainstreaming of visually impaired children. The study aimed at

examining the various issues and the role of regular and special teacher related to the education of the visually impaired children in mainstream schools. On the basis of the finding the researcher concluded that if inclusive education is to be the focus of educational policy in near future, the reciprocal role of regular and special teachers would be crucial. Parents need to be counselled before the children are integrated in mainstream schools. Successful mainstreaming of visually impaired requires two levels of education i.e., academic and compensatory which can be imparted jointly by the classroom and special teacher. Children with visual impairment should not be segregated and regular school teachers be given appropriate incentives for modifying the learning environment for the visually impaired.

Verma (1998) for her doctoral research studied the cognitive and motivational characteristics of children with Learning Disabled (LD) and Non-Learning Disabled (NLD). Results indicated that NLD and LD were significantly different in respect of selective attention, auditory, visual discrimination and figure ground perception. The LD group attributed its failure to lack of ability and luck whereas the NLDs attributed success to ability and task difficulty.

Swarup and Ahuja (1998) studied the effect of auto-analysis of errors and training in self-direction to improve quantitative thinking of children. The sample of Standard IV and V children was drawn from two general schools of Mumbai. The training in self-direction and self-analysis of errors led to reduction in number of errors and improvement in the performance on the test of quantitative thinking.

Swarup (1999) developed a meta cognitive strategy training programme called "Strategy Training for Effective Learning (STEL) for the children with learning disability in the mainstreamed class. The objective of this programme is to help all students including the learning disabled to learn and develop strategies for effective acquisition, retention and recall of information and also for development of effective thinking and problem solving skills which would make them independent learners.

Swarup and Chopra (2002) studied the typical behaviours of children identified as having Attention Deficit Hyperactivity Disorder

(ADHD) in mainstreamed class. The sample was drawn from a population of 1920 children in the age range of 5-7 years, studying in eight private aided English medium schools in Mumbai. Applying the exclusionary criteria the final sample of 34 children was arrived at and from these 34, only eight were selected for the case study. Researchers interviewed teachers and parents, used rating scales and systematic observation to study teachers' and parents' perceptions, school climate, home environment and teacher and parent concerns. Individualised management plans were developed for the teachers and parents separately to be executed over a period of 2 weeks in sessions of 30-45 minutes. The parents' and teachers' ratings matched on most of the behaviours. The intensity of identified behaviours, such as attentional problems, hyperactivity, impulsivity, social clumsiness, demanding/insatiable behaviour, emotionality was studied and remediated using the management plan developed by the researchers.

As the children with disabilities are studying in general schools, exceptional children with giftedness and high I.Q. are also found in the general schools. Not much research has been reported in the area of giftedness. Kauser and Jabeen (1995) studied giftedness and creativity among elementary school children with reference to age and gender. The purpose of the study was to identify the children from general class and compare the subjects age and gender wise in terms of their mental ability and creativity.

A large number of studies have been conducted at the masters' level in the area of specific learning difficulties, which have not been published. The dissertations are available in the libraries of various universities.

Researches on Inclusive Education: Ahuja (1996) conducted a study entitled *Moving Towards Inclusive Education : An Innovative Teacher Training Experiment*. It was a developmental action research study conducted at the NCERT. Whole school approach was used employing single group pre-test post-test design. The objectives of the study were :

- To conceptualise teacher development design for meeting educational needs of all children in the classroom.

- To study the extent of effect of the changed classroom practice on the learning and achievement.
- To study the effect of the changed classroom practice on the learning and achievement of the learners.

The study showed significant positive results in terms of changing the motivational level of the heads of the institution, classroom practice, and attitude of students towards learning. The sample teachers developed better training capabilities and understanding of pupils' learning style and needs. Teachers, in general, expressed their willingness to continue to work on the module in day-to-day practice.

Shevde (1997) conducted a feasibility study of models of inclusive education. She had tested the feasibility of three models :

- Level – appropriate Academic
- Age – appropriate co-curricular
- Age – appropriate

A number of factors stated as essential for inclusive education were a flexible curriculum, a different system of evaluation and changes in the organisation of the classroom. A commonly stated concern was that the effect of inclusion if initiated without the support system would increase the workload of the regular school teachers. Parental resistance also came out to be a strong factor among the barriers to inclusive education. It was felt desirable that the parental involvement be increased.

Swarup (1998) developed and tested the feasibility of a teaching-learning programme called "Learning Enhancement and Progress" (LEAP) for general school teachers to "Make Inclusion a Reality through Cooperative Learning". The programme is based on the principles of cooperative learning and is aimed at answering most oftenly asked question. "How to manage children with special learning needs in a large class of 70-80 children." This programme was presented in the National Conference on Dyslexia held at Chennai organised by Madras Dyslexia Association.

Zaveri (2001) developed an awareness module on Inclusive Education for students with disabilities for administrators and teachers of general schools. The module was implemented using "printed media" approach and "interactive

approach". The results indicated equal effectiveness of both the approaches for creating awareness. The teachers felt inclusion to be desirable but not feasible. Factors such as large class size, vast curriculum content, lack of training and awareness to deal with the handicapped population, rigid curriculum and time framework seem to be pervasive in present educational system irrespective of the type of the school (Private or Govt. aided) and irrespective of the level of the school (Elementary or High School). These factors seemed to be having a critical influence on the teachers perspectives of inclusion being feasible. The awareness about issues related to the provisions and the policies formulated for the handicapped population seemed to be very low amongst the general educators.

CONCLUSION

Out of a small number of studies conducted in the area of inclusive education only one thing emerges i.e., the beginning has been made but the researches are either at the awareness level or exploratory in nature. More specific, precise and scientific researches are needed to make inclusive education a reality in practice on a

much larger scale than what has been happening as of to day.

More teacher training modules need to be developed so that not only pre-service but in-service teachers also could be trained in inclusive practices.

A great need of research has been felt in the area of curriculum development to make it more need-based and provide scope for curricular adaptation. Feasibility studies need to be conducted by using multi instructional approaches and testing variety of instructional strategies at various levels. Parameters of assessment and evaluation need to be looked into and necessary modifications need to be done and validated across the age levels and standards.

The administrative and management aspects of inclusive education need to be studied at the micro and macro levels both in rural and urban settings so that the models thus developed could be replicated in varied situations. Conscious efforts are required to bring in attitudinal changes in the teachers, managers, non-disabled students and the community through the use of multi-media. The researches could be conducted to develop and test the efficacy of the multi-media packages for different target groups.

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