

# Impact of Inclusive Education with Holistic Approach on Self-Esteem, Self-Concept and Attitude towards Disability in Indian Elementary School Children

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## ABSTRACT

Pedagogic experts are unanimous in their support for the benefits of inclusive education, however a review of present literature, revealed limited evidence in support of it. In order to evaluate impact of inclusive education, 269 children studying in inclusive schools were compared with 278 children studying in main stream non-inclusive schools, on behavioral factors. Children were administered three questionnaires, Children's Self Concept Scale (CSCS- AS), Battle's Self Esteem Inventory for Children (SEIC) and Hindi version of Chedoke McMaster Attitude towards Children with Handicap. Descriptive statistics and independent t-tests ( $p \leq 0.05$ ) were used to analyze the data. The results revealed that not only children studying in inclusive schools had higher scores on all behavioral measures than children studying in non-inclusive schools, there was also no difference in scores of children with and without disability; suggestive of positive impact of inclusive education school on self-image via process of peer learning.

**Key Words:** Inclusive Education, Self-Esteem, Self-Concept, Attitude towards Disability, Elementary School Children

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## INTRODUCTION

The education of persons with disabilities has progressed from segregation to integration, and now to inclusion (Jha, 2004). Until the '70's most experts and government agencies encouraged segregation of the disabled child. Most educators and policy makers believed that children with disability were so different that they could not participate in the activities of a regular school. Disabled children were educated in isolation and protected from the larger school community, which consequently led to further lack of autonomy and dependency on society as they transitioned to adulthood (Advani, 2002).

Recently, there has been a progressive paradigm shift from traditional models of how disability has been viewed to more comprehensive models (Liz Crow, 1996; Gabel and Peters, 2004), e.g., the biopsychosocial model (Engel, 1980). Disability is now considered a natural form of diversity on a continuum and instead of referring to children with disabilities as having special needs, inclusion regards these children as a part of diversity among learners who need different but equal treatment (Jha, 2010).

Inclusion represents a convergence of social, political and educational policies that include the expertise of all stakeholders, such as the disabled child, special educators, healthcare workers, social workers etc. Interestingly, inclusion in education has primarily been directed through legislation as a human right and it has a common goal of education for all (Thomas & Vaughan, 2005). A fundamental principle of inclusive education is that all children with diverse abilities and/or disabilities learn together. Thus, inclusive schools must recognize and respond to this diversity, and the various needs it represents, through different styles of learning, curricula, organizational arrangements, teaching strategies, resource use and partnerships with their communities (Wang, 2009).

The inclusion of children with disabilities into mainstream primary schools has been debated across the world (Schmidt & Cagan, 2008). Several proponents of mainstreaming have suggested that it introduces the child with disability to every day realities of life and thus helps integrate the child into society efficiently (Geoff, 2007). The environment in inclusive schools is friendly; however, the child is continuously challenged to perform better at his/her own pace and such learning is primarily peer-driven. Also, when proper support is meted out to children, inclusion will work for all students with and without disabilities in terms of mutually held positive attitudes, gains

in academic and social skills and preparation for living in the community (Puri et. al, 2004). Children with diverse abilities learn to understand, respect and grow comfortable with individual differences and similarities among their peers, and in many ways, children without disabilities benefit from inclusion just as much as do children with disabilities (Dash, 2006).

Generally, it is assumed that the inclusion of children with disabilities in regular primary schools has a positive impact on their academic achievements as well as on their personal and social development (Schmidt & Cagran, 2008). A review of literature however, reported mixed results with regards to the effect of inclusion on self-concept and self-esteem in children with disabilities (Mrug & Wallender, 2002; Geoff, 2007). Thomas et al (1998) found that students in inclusive classrooms had higher self-esteem but lower physical self-concept, than their peers in either partially integrated or entirely segregated settings. Similarly, Mrug and Wallender (2002) found that children who studied in integrated classrooms had a more positive view of themselves and that of the world. In contrast, Daniel and King (1997), reported lower self-esteem in children studying in inclusion classes, and a systematic review reported lower self-concept scores in adolescent females with Cerebral Palsy than females without disability (Shield, Murdoch, Loy, Dodd, Taylor 2006). Children with hemiplegic cerebral palsy experienced reduced quality of life and self-concept compared with typically developing peers (Magill & Hurlbut 1986, Russo et al 2008). Research conducted on hearing impaired children has also reported inconsistent results. Some researchers have reported lower self-concept in children with hearing impairments studying in inclusive schools compared to their hearing peers (Schmidt & Cagran 2008), while others found no significant differences (Cates et al., 1991). Similarly, Paul et al (1992) found no significant differences in self-esteem among adolescent children with and without physical disability.

Inclusive education is purported to have huge social consequences in empowering the disabled student through education and developing a disabled-friendly society (Singal, 2010). Nevertheless, there is limited evidence to support it, and the available literature is at best controversial (Magill & Hurlbut 1986; Cates, et al., 1991; Paul et al 1992; Daniel and King 1997; Thomas et al, 1998; Mrug and Wallender, 2002; Shield, Murdoch, Loy, Dodd, Taylor 2006; Geoff 2007; Russo et al 2008; Schmidt & Cagran, 2008). A possible explanation for this contrarian evidence may be the number of children with disability who are included in mainstream educational institutions and types of support provided. Also, it has been suggested that inclusion classrooms do not account significantly for the time and effort imposed upon schools and teachers, and that the rights of a few students may disrupt education and rights of the majority (Jha, 2010).

It is noteworthy, however, that given these mixed results there is a growing consensus and overwhelming support among experts around the world that inclusive education is beneficial, and a necessity, in order to initiate change and mainstream children with disabilities into society. Accordingly, it was not surprising that the principle of inclusive education was adopted at the 'World Conference on Special Needs Education' in Salamanca, Spain, in 1994 (UNESCO, 1994) and was reiterated in Dakar, Senegal in 2000 at the World Education Forum. It has also been included in the United Nation's rules of equal opportunities for persons with disabilities and equality for all. (UNESCO, 2000)

In India, the government has been committed since at least the mid '90's, to the idea of the right to education and the mainstreaming of children with disability 6-14 years, in accordance with the Person with Disability Act (PWD, 1995) and more recently the Right to Education Act (RTE, 2009). It is thus surprising that despite enactment of these comprehensive laws, and a consensus among education experts in support for inclusive education, very little has changed at the ground level. This is partly as a result of real and perceived barriers to the creation of new inclusive schools or of getting existing mainstream schools to adopt and adapt to inclusive education. In addition, there are other practical realities such as, creating or modifying existing physical infrastructure, developing trained human resources, providing medical and rehabilitation services, assuring social acceptance, finding financial resources etc. Consequently, there are very few schools that have implemented this model of education, thus denying large sections of society contribution to the development and progress of the nation. (Aruna, Singh & Lal, 2016; Singh, 2016)

In the Delhi NCR, there are two schools that embraced the idea of holistic inclusive education in spirit and practice from the early 80's. These schools, which are barrier-free, admit children with and without disability in equal numbers and provide them with all the necessary resources that they require, such as rehab/medical – including physiotherapy, occupational therapy, social, psychological, special education services, vocational training etc. The services are child centric as they address individual needs and focus on empowerment of the child through education (Tuli, 2018). In both schools, children follow a Central Board of Secondary Education (CBSE) curriculum for classes II to VIII. This unique model of inclusive education, to the best of our knowledge, has not been objectively evaluated. Accordingly, the present study was designed to compare children studying in the inclusive schools with children studying in main stream non-inclusive schools on psychosocial factors, such as self-concept, self-esteem and attitude towards disability. Specifically, the objectives of this study were: (1) firstly, to

determine the self-concept, self-esteem and attitude-towards-disability in children studying in inclusive schools and non-inclusive schools; (2) secondly, to compare self-concept, self-esteem and attitude-towards-disability between children studying in inclusive schools versus non-inclusive schools; and (3) thirdly, to compare self-concept, self-esteem and attitude-towards-disability between children with and without disability studying in inclusive schools.

## **Methodology**

### ***Study sample***

A total of 547 students in Delhi, 269 students studying in inclusive schools and 278 students from non- inclusive schools, with and without disability belonging to second to eighth standards (age range of 5 – 18yr) were recruited as a sample of convenience. The major inclusion criteria were the ability to read and/or understand verbal instructions in Hindi, and to have spent a minimum of 6 months studying in their respective classes.

### ***Institutions***

#### ***Inclusive Schools***

These are identified as schools in which, children with and without disability study in approximately equal numbers and participate in the learning process together. Children with disability included children with physical impediments, low and high vision deficits, and/or speech & hearing impairments. The class rooms, campus and school activities are student centric, are specially designed to cater to the differential needs of all children and to give equal opportunities to all students to display their capabilities. The schools provide comprehensive vocational training, medical and rehabilitation services like occupational, physiotherapy and speech therapy in order to facilitate learning.

#### ***Non-inclusive Schools***

These are identified as Private schools where children without disability or ‘normal’ children study. The classes are well equipped with modern learning amenities and follow established guidelines. The schools are run and funded usually by a private individual or group of individuals but registered under Directorate of Education. These schools have various academic, cultural and sports facilities for the all-round development of their students.

### ***Instruments***

#### ***Children’s Self Concept Scale (CSCS- AS)***

This is the Hindi adaptation of Piers and Harris Children Self Concept Scale (CSCS) adapted by Dr. S.P Ahluwalia and Dr. Hari Shankar Singh (2012). The test consists of eighty items, which are scored on a nominal scale (Yes/No) across six domains: Behavior, Intellectual and School Status, Physical Appearance, Anxiety, Popularity, Happiness and Satisfaction. A high score on the scale indicates a favorable self-concept with maximum score of 78 and minimum score of zero. Its test-retest reliability is 0.88 and concurrent validity ranges from 0.40 to 0.62(Chandra et al 2012).

#### ***Battle’s Self Esteem Inventory for Children (SEIC)***

This is An Indian adaptation of the Battle’s Self Esteem Inventory developed by Anand Kumar (1988)for Children. It consists of 50 items across the following domains: General, Social, Academic and Parental. The score ranges from 0 to 50, with a higher score suggesting better self-esteem. The test-retest and split half reliability is 0.90- 0.93. It also correlates well with Stanley Coppersmith’s (1967) Self Esteem inventory (Battle, 1979).

#### ***Chedoke McMaster Attitude towards Children with Handicap***

The CATCH questionnaire (Rosenbaum et al, 1986) measures attitudes towards disability in three domains: affective, behavioral and cognitive. The questionnaire consists of 36 items (12 in each domain) divided into an equal number of positively and negatively worded statements and scores on a 5-point Likert scale. Scores range from 0-40, with higher scores indicative of more positive attitudes (Godeau et al, 2010). The questionnaire was translated from English to Hindi, and the translation was approved by two experts in Hindi language. A pilot study (unpublished) showed that the translated version was valid and had moderate internal consistency (Cronbach’s  $\alpha$  =0.63).

### ***Procedure***

After ethical approval and permission from the school principals, consent was taken from parents of children recruited for the study. Following this assent was taken from the school children prior to data collection. Children were addressed in groups as per their class and grade level, following which the children filled the demographic section and responded to the questionnaires individually. They were supervised and helped by a group of trained volunteers. After initial instructions, each of the items in the questionnaire were read out and adequate time for a response was given. Students who could not follow instructions in a group were addressed directly and were administered the questionnaires individually.

**Data analysis**

A descriptive analysis in terms of central tendencies was performed for the scores obtained on each measurement scale. The scores of children with and without disabilities studying in inclusive and non-inclusive schools were compared using independent t-tests for unequal samples at a  $p < 0.05$ .

**RESULTS**

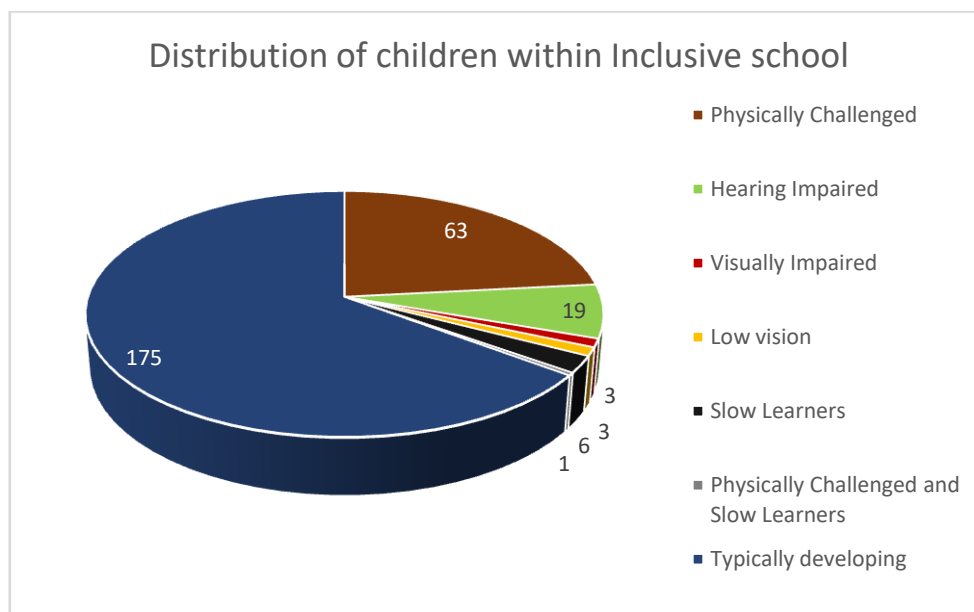
**Demographics**

600 children with and without disability volunteered to fill the self-report questionnaires that included a demographic section and the Indian versions of three tests, namely Battle’s Self Esteem Inventory for Children (SEIC), Children’s Self Concept Scale (CSCS- AS) and the Chedoke McMaster Attitude towards Children with Handicap (CATCH). Of the 600, 53 questionnaires were rejected as they were incomplete. Thus, data from a total of 547 questionnaires were analyzed.

As seen in table 1, in the inclusive school ( $n=269$ ), 95 children with disability and 174 without disability volunteered for the study, while in the non-inclusive schools 278 children without disability were sampled. Interestingly, no children reported having any form of disability in these institutions. Please refer to Table 1 for demographics of the sample and Figure 1 for disability wise distribution of children in inclusive schools.

**Table 1: Demographics of School students**

	Inclusive	Non-Inclusive	Total
Total Number of Typically developed Children	174	278	452
Total Number of Disabled Children	95	0	95
Total Children	269	278	547
Gender wise distribution			
Male	112	123	235
Female	158	154	312
Class wise distribution			
II	42	58	100
III	44	8	52
IV	44	4	48
V	33	42	75
VI	31	84	115
VII	37	0	37
VIII	38	82	120



**Figure 1: Disability wise distribution of children within inclusive school**

### Children in inclusive versus non- inclusive schools

Overall, the data analysis revealed that children studying in inclusive schools have higher scores with regards to self-esteem ( $32.37 \pm 7.34$ ), self-concept ( $50.26 \pm 11.39$ ) and attitude towards disability ( $23.32 \pm 3.38$ ) than children studying in non-inclusive schools (self-esteem =  $25.59 \pm 3.26$ , self-concept =  $40.5 \pm 5.41$  and attitude towards disability =  $21.85 \pm 3.02$ )

**Table 2: Comparison between inclusive and non-inclusive school children for their self-esteem, self-concept and attitude towards disability**

Scales	Description	Maximum Score	Inclusive Schools N= 269	Non-Inclusive Schools N= 278	t value
<b>Self Esteem</b>	<b>Total Score</b>	<b>50</b>	<b><math>32.37 \pm 7.34</math></b>	<b><math>25.59 \pm 3.62</math></b>	<b>13.76*</b>
	General	20	$12.66 \pm 3.96$	$9.81 \pm 1.94$	10.76*
	Social	10	$6.16 \pm 1.65$	$5.75 \pm 1.33$	3.18*
	Academic	10	$7.20 \pm 1.74$	$5.26 \pm 1.01$	16.01*
	Parental	10	$6.34 \pm 2.25$	$4.77 \pm 1.30$	10.02*
<b>Self Concept</b>	<b>Total Score</b>	<b>80</b>	<b><math>50.26 \pm 11.39</math></b>	<b><math>40.50 \pm 5.41</math></b>	<b>12.86*</b>
	Behaviour	16	$9.57 \pm 3.98$	$5.37 \pm 1.94$	15.78*
	Intellectual & School Status	18	$13.34 \pm 2.89$	$12.04 \pm 1.93$	6.22*
	Physical Appearance	12	$8.87 \pm 2.34$	$9.08 \pm 2.08$	-1.09 <sup>NS</sup>
	Anxiety	12	$4.91 \pm 2.94$	$2.33 \pm 2.04$	11.98*
	Popularity	12	$7.51 \pm 2.32$	$6.28 \pm 1.72$	-1.05*
	Happiness & Satisfaction	10	$6.67 \pm 1.40$	$6.57 \pm .93$	0.99 <sup>NS</sup>
<b>Attitude Towards Disability</b>	<b>Total</b>	<b>36</b>	<b><math>23.32 \pm 3.38</math></b>	<b><math>21.85 \pm 3.02</math></b>	<b>5.36*</b>

\*significant  $p < 0.05$

<sup>NS</sup> non-significant  $p > 0.05$

#### Self-esteem

The self-esteem of children studying in the inclusive schools were significantly higher than children studying in non-inclusive schools,  $t(388) = 13.76$ ,  $p < 0.05$ ,  $\eta = 1.18$ ). Additionally, the analysis of the sub-scores revealed significant differences between children studying in inclusive versus non-inclusive schools across all domains: General,  $t(386) = 10.76$ ,  $p < 0.05$ ; Social,  $t(513) = 3.18$ ,  $p < 0.05$ ; Academic,  $t(428) = 16.01$ ,  $p < 0.05$ ; and Parental,  $t(426) = 10.02$ ,  $p < 0.05$ .

#### Self-concept

The self-concept of children studying in the inclusive schools was significantly more than that of the children studying in non- inclusive schools,  $t(380) = 12.86$ ,  $p < 0.05$ ,  $\eta = 1.10$ . Refer Figure 3.

Additional analysis of the sub-scores revealed significant differences between children studying in inclusive versus non-inclusive schools in the following domains: Behavior,  $t(385) = 15.78$ ,  $p < 0.05$ ; Intellectual and school status,  $t(464) = 6.22$ ,  $p < 0.05$ ; Anxiety,  $t(475) = 11.98$ ,  $p < 0.05$ ; and Popularity,  $t(492) = -1.05$ ,  $p < 0.05$ . The dimensions of physical appearance  $t(532) = -1.09$ ,  $p > 0.05$  and happiness & satisfaction  $t(463) = 0.99$ ,  $p > 0.05$  not achieved significance.

#### Attitudes to disability

The attitude towards disability of children studying in the inclusive schools was significantly better than that of the children studying in non- inclusive schools,  $t(533) = 5.36$ ,  $p < 0.05$  with  $\eta = 0.46$ .

*Typically developing children in inclusive versus non-inclusive schools*

**Table 3: Total score of Self-esteem, Self-concept and Attitude towards Disability amongst typically developing children studying in inclusive and Non- inclusive schools**

Scales	Description	Maximum Score	Inclusive school N= 174	Non-inclusive school N= 278	t Value
Self Esteem	<b>Total Score</b>	<b>50</b>	<b>32.00 ± 7.77</b>	<b>25.59 ± 3.62</b>	<b>11.85*</b>
	General	20	12.62 ± 4.44	9.81 ± 1.94	9.23*
	Social	10	6.22 ± 1.72	5.75 ± 1.33	3.25*
	Academic	10	7.04 ± 1.80	5.26 ± 1.01	13.44*
	Parental	10	6.12 ± 2.28	4.77 ± 1.31	7.98*
Self Concept	<b>Total Score</b>	<b>80</b>	<b>49.80 ± 11.85</b>	<b>40.50 ± 5.41</b>	<b>11.32*</b>
	Behaviour	16	9.24 ± 4.02	5.37 ± 1.94	13.70*
	Intellectual & Social Status	18	13.34 ± 2.87	12.04 ± 1.93	5.75*
	Physical Appearance	12	8.72 ± 2.40	9.07 ± 2.08	1.64 <sup>NS</sup>
	Anxiety	12	4.84 ± 3.05	2.33 ± 2.04	10.47*
	Popularity	12	7.49 ± 2.44	6.28 ± 1.72	6.17*
	Happiness & Satisfaction	10	6.61 ± 1.44	6.57 ± .93094	0.36 <sup>NS</sup>
<b>Attitude Towards Disability</b>	<b>Total Score</b>	<b>36</b>	<b>23.09 ± 3.33</b>	<b>21.85 ± 3.02</b>	<b>5.66*</b>

\*significant  $p < 0.05$

<sup>NS</sup> non-significant  $p > 0.05$

**Self-esteem**

The self-esteem of typically developing children studying in inclusive schools was significantly better than that of their non- inclusive school peers,  $t(219) = 11.85, p < 0.05, \eta = 1.15$ . Refer figure 5. Furthermore, an analysis of the sub-scores revealed significant differences between typically developing children studying in inclusive versus non-inclusive schools in the following domains: General,  $t(215) = 9.23, p < 0.05$ ; Social,  $t(302) = 3.25, p < 0.05$ ; Academic,  $t(243) = 13.44, p < 0.05$ ; and Parental,  $t(245) = 7.98, p < 0.05$ .

**Self-concept**

The self-concept of typically developing children from the inclusive schools was significantly better than that of their counterparts from non- inclusive schools,  $t(217) = 11.32, p < 0.05, \eta = 1.10$ . Additionally, there were significant differences between typically developing children studying in inclusive versus non-inclusive schools in the following domains: Behavior,  $t(224) = 13.70, p < 0.05$ ; Intellectual and social status,  $t(271) = 5.75, p < 0.05$ ; Anxiety,  $t(270) = 10.47, p < 0.05$ ; Popularity,  $t(278) = 6.17, p < 0.05$ . No significant differences were seen in Physical appearance,  $t(418) = 1.64, p > 0.05$  and Happiness & satisfaction domain,  $t(449) = 0.36, p > 0.05$ .

**Attitudes to disability**

The attitude towards disability of typically developing children studying in the inclusive schools was significantly better than their counterparts from non- inclusive schools,  $t(277) = 5.66, p < 0.05; \eta = 0.39$ .

**Children with disability versus typically developing children in inclusive schools**

**Table 4: Comparison between children with disability and typically developing children with in inclusive school for the total score of Self-esteem, Self-concept and Attitude towards Disability**

Total Score	Maximum Score	Children with Disability N= 95	Typically Developing Children N= 174	t Value
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Self-Esteem	50	33.03 ± 6.48	32.00 ± 7.77	1.10 <sup>NS</sup>
Self-Concept	80	51.09 ± 10.52	49.79 ± 11.85	0.89 <sup>NS</sup>
Attitude towards Disability	36	23.75 ± 3.43	23.09 ± 3.33	1.55 <sup>NS</sup>

<sup>NS</sup> non-significant  $p > 0.05$

There was no significant difference between the children with disabilities and typically developing children within inclusive school as far as total score of Self-esteem,  $t(227) = 1.10$ ;  $p > 0.05$ ,  $\eta = 0.14$

There was no significant difference between the children with disabilities and typically developing children within inclusive school as far as total score of Self-concept,  $t(267) = 0.89$ ,  $p = 0.37$ ,  $\eta = 0.11$

There was no significant difference in the attitude of children with disability ( $23.75 \pm 3.43$ ) towards their peers and typically developing children ( $23.08 \pm 3.33$ ) towards children with disability within inclusive schools,  $t(191) = 1.55$ ,  $p = 0.12$ ,  $\eta = 0.19$

**Table 5: Frequency distribution of children’s responses on two subjective questions**

CATCH Questions	Total Number of Children with Disability Answering No N= 95	Total Number of Typically Developing Children Answering Yes N= 169
Q. Do you have a handicap?	26 (27.36%)	NA
Q. Do you have a friend who is handicapped?	NA	134 (79.29%)

27.36 % of children with disability studying in the inclusive schools, when asked (as part of the CATCH scale) if they had a disability, answered that they did not did not acknowledge their disability. Also, 79.29 % of typically developing children, when asked if they had a friend with a handicap in the CATCH scale, answered in the affirmative.

### DISCUSSION

In a survey the self-esteem, self-concept and attitude towards disability of children with and without disability from mainstream inclusive and non-inclusive schools were evaluated using Battle’s Self Esteem Inventory for Children (SEIC), Children’s Self Concept Scale (CSCS- AS) and Chedoke McMaster Attitude towards Children with Handicap. The inclusive school consisted of typically developing children as well as children with disabilities, while the non-inclusive schools had no children with disabilities. Among the children with disabilities, the majority were physically challenged, followed by hearing/speech impaired, slow learners, and visually impaired. The gender and age distribution across the inclusive and non-inclusive school were comparable. Overall, the results revealed that children studying in an inclusive school, regardless of their disability or ability, had a greater sense of their selves and had a better acceptance of children with disability than their peers studying in non-inclusive institutions.

It has been speculated that inclusion in mainstream schools may negatively affect a disabled student’s sense of self-esteem and self-concept as they are taught at mismatched levels with typically developing students, whom it is assumed have significantly higher levels of ability. The results of the present study support a contrarian view point. Both Self-esteem and Self-Concept of children, regardless of their ability or disability studying in Inclusive Schools scored significantly higher than children studying in non- inclusive setups. They also had significantly better attitude towards disability than the children who were never exposed to disability. It is important to point out that the inclusive school in this study was unique in that children with disabilities are represented in fairly large and diverse numbers and there is a holistic rehabilitation infrastructure within the school campus to support them. Furthermore, it is suggested that inclusive education establishes a unique form of communication and emotional bonding between children with and without disabilities at an early age, as they play and study together. This has been proposed to ease the mainstreaming and integration of the children with disabilities in society. (Tuli, 2018)

It is observed that there is a high level of social interaction among children with a wide array of abilities in the inclusive schools. They are seen to be interacting at various levels to match each other's special needs, modifying play activities to 'include all' their friends and competing with each other to help their friends (Lampton, 2012). It appears that children in inclusive setups learn from their peers based on a critical process of observations (Bryan et al., 2004). As students with diverse and different abilities interact in a rich and common platform they accommodate, adapt and learn from each other with a need for very little supervision (Bandura, 1971). The results of our study support the idea that emphasizes an interaction of environment – person- behavior system.

Overall, children, regardless of their abilities, studying in inclusive schools reported higher self-esteem scores compared with children studying in non-inclusive schools. Interestingly, the scores of children with disabilities were comparable to typically developing children studying in the inclusive school, suggesting that these children had a high level of confidence in their abilities. In contrast, Magill and Hurlbut (1986) reported decreased self-esteem in the physical and social domains in adolescent girls with cerebral palsy compared to girls without disability. Self-esteem is a process of self-evaluation associated with confidence, self-direction, the non-blaming of others, personal strength, optimism, ability to solve problems and ability to control emotions (Eremie & Chikweru, 2015). A fundamental principle of inclusive education is that diversity and individual differences are not seen as problems but opportunities to enhance the learning through a process of self-evaluation (UNESCO, 2005), which leads to better self-esteem in children studying in inclusive schools. Peers studying in non-inclusive schools, where there is stiff competition for a limited array of desirable attributes such as physical appearance, academic and co-curricular achievements, have fewer opportunities to self-evaluate and grow. Children in inclusive schools learn to understand, respect and grow comfortable with individual differences and similarities among their peers. Thus, inclusion works for all students with and without disabilities in terms of mutually held positive attitudes, gains in academia and social skills. In this study, self-esteem associated with the sub-domains of general attributes in life, attributes in social settings, attributes in academic settings/achievement and attributes concerning relationship with parents was significantly better in children studying in inclusive schools than those in non-inclusive schools.

Self-concept is a perception of one's self/image, and or an individual's feeling of self-worth. Increased self-concept leads to realistic expectations, an ability to accept the self in its current state and to be positive even if expectations are not met. Specifically, children with a high self-concept do not depend on approval from others and tend to accept themselves as they are and don't feel the need to conform in order to be accepted (Sharma, 2016). Self-concept and its sub-domains with regards to behavior, intellectual and social status in school, popularity among peer groups, and happiness and satisfaction in life was significantly better in inclusive school children than children from non-inclusive schools. Interestingly, it was also observed that typically developing children studying in inclusive schools had a greater self-concept than children studying in non-inclusive schools. Surprisingly, the physical appearance and happiness/satisfaction domains reported by children with disability were comparable to typically developing children regardless of type of school and gender. This suggests that the presence of disability does not negatively influence the development of self-concept in these domains in these children.

In contrast, in a systematic review of six studies, it was reported that adolescent girls with CP had a lower self-concept in certain specific sub-domains than the non-disabled (Shields, Murdoch, Loy, Dodd, Taylor, 2006). These results may be explained using Festinger's Social Comparison Theory (1954) that proposes that individuals compare themselves to their peers when no other standards are available. Children in inclusive settings create their self-concept based on the knowledge obtained from their surroundings where there are no rigid boundaries of what is 'normal'; rather each child references his/her own abilities, which are explored and appreciated. The learning environment beyond the physical class room also sets a tone in the child which then leads to the generation of certain perceptions and feelings about oneself and others (Vyas, 2017). Inclusive class rooms, where all abilities and disabilities co-exist and conform to a dynamic curricular and extra-curricular syllabus, similar to the inclusive schools that were surveyed, help in the realization of individual capabilities and their acceptance. Furthermore, if the concept of individual differences is internalized early, life will empower these children to make better choices for themselves in the future. Inclusion of children with disabilities with typically developing children gives them a chance for early interaction with a diverse population that positively impacts their personal and social development and leads to a more realistic sense of their self-concept. The mean self-esteem and self-concept scores observed in children studying in inclusive schools within this study, were comparable to previous studies done on regular Indian children (Hangal & Aminabhavi 2007; Telles et al, Bhardwaj & Agrawal 2013; Chetri 2014). This suggests that these children are at par or better than their peers studying in regular non-inclusive schools.

An important finding of this study was that children, with and without disabilities, studying in inclusive schools scored higher on the test for attitude towards disabled children than typically developing children studying in non-inclusive schools. These results suggest significant benefits in attitudes towards children with disabilities in children studying in inclusive schools. Not only does this benefit the children in developing positive attitudes towards disability, but it also exposes the children to the realities of ability and disability in the context of a



challenging environment, and thus, makes their transition from education to social integration and employment easier.

It has also been suggested that children with and without disabilities experience social and educational benefits in inclusive schools (Boer et al 2012; Olaleye et al, 2012). Disability is the social aspect of impairment, and thus, if the social attitude towards the impairment is positive, then the societal impact of disability can be minimized. Furthermore, as disability and/or ability is a part of the 'real world' continuum, inclusive education helps in developing a positive attitude towards disability. Prolonged, meaningful interaction in an inclusive environment with children with disability increases familiarity, understanding and reduces prejudice. Inclusive education is thus central in promoting inclusive and equitable societies (World Report on Disability, 2011).

There was no significant difference between children with and without disabilities studying in inclusive schools on attributes like self-esteem, self-concept and attitude towards disability. It appears that children tend to form heterogeneous groups in which they are interdependent on each other's diverse abilities, thus typically developing children as well as children with disabilities develop a sense of control which aids in a more positive self-esteem and self-concept. If typically developing children are exposed to disability from a very young age, they start to see it as something 'normal', and this consequently leads to the development of a more positive attitude towards the differently abled. Thus children, with and without disabilities, experience social benefits in inclusive schools that were part of this study. It has been purported that children nurtured in the same inclusive environment focus less on what they 'cannot' do and more on what they can do. It is observed that the friendly yet challenging environment of an inclusive school motivates children, regardless of ability or disability, to perform at higher levels in a self-paced manner, and qualities like positive attitude, ambition, and confidence are nurtured for all children alike. Surprisingly, children with disabilities fared significantly better than typically developing children on the academic and parental sub-domain of self-esteem. This may be due to them exceeding the expectations of teachers and parents because the bar for school performance is set slightly lower than for typically developing children.

A significant finding of this study was that children without disability studying in inclusive schools had significantly higher self-esteem, self-concept and a more positive attitude towards disability than the children studying in non-inclusive schools. It is suggested that the environment in inclusive schools facilitates the participation of all children in school activities in a dynamic and an ongoing manner. Furthermore, it appears that there are more opportunities for typically developing children studying in inclusive schools to develop a positive attitude towards a spectrum of diverse abilities, while concurrently developing academic and social skills that consequently lead to relatively better benefit in self-esteem, self-concept and attitude to disability than children in a mainstream school.

An interesting finding of this study was that twenty percent (27.36%) of the children with disabilities in inclusive schools did not acknowledge their disability when directly asked the question (part of the CATCH Scale). These children, it appears, do not consider themselves to be different from the typically developing children. This non-acceptance or acceptance of their disability can be considered a positive benefit when seen in light of their high self-concept and self-esteem scores. Another observation was that most (79.29%) of the typically developing children at the inclusive school had at least one friend who was disabled and were accepting and helpful towards the needs of their disabled peers.

The limitation of the present study is that the socio-economic background of the children and their academic performance was not taken into consideration while analyzing the results and it is proposed these factors must be studied in future to complete the picture.

## CONCLUSION

The present study suggests that a comprehensive and 'holistic' program of inclusive education in a mainstream school is an effective means to quality education, which is an inherent property of reducing discrimination and building on everyone's strengths. Inclusion in education positively affects self-esteem, self-concept and attitude towards disability of children in elementary school children aged, 6 – 14 years. It helps in developing the psychosocial aspects of children's personalities in ways that that potentially help them contribute effectively in society – social empowerment. This in turn can be expected to help in building a better and a more empowered tomorrow for children with disability and a more evolved society at large.

## REFERENCES

- [1]. Advani, L. (2002) "Education: A Fundamental Right of Every Child Regardless of His/Her Special Needs". *Journal of Indian Education; Special Issue on Education of Learners with Special Needs*. New Delhi: NCERT.

- [2]. Ahluwalia, S.P& Singh Hari Shankar. (2012) Children's Self-Concept Scale (CSCS). Agra: National Psychological Corporation.
- [3]. Aruna, Singh Kuldeep, Lal Mangi. (2016) Inclusive Education in India. *The International Journal of Indian Psychology*, ISSN 2348-5396 (e) ISSN: 2349-3429
- [4]. Bandura Albert (1971) [http://www.asecib.ase.ro/mps/Bandura\\_SocialLearningTheory.pdf](http://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf)
- [5]. Battle James (1979) Self-Esteem of Students in Regular and Special Classes. *Psychological Reports*44:1, pages 212-214. ABSTRACT
- [6]. Bhardwaj Abhishek Kr. and Agrawal Gaurav. (2013) Gender Difference in Pre-Adolescents' Self-Esteem. *International Journal of Social Science & Interdisciplinary Research*, 2:8 pages 114-119
- [7]. Anke de Boer, Marieke Timmerman, Sip Jan Pijl, Alexander Minnaert. (2012) The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. *European Journal of Psychological Education*27:4 pages 573–589
- [8]. Bryan Tanis, Burstein Karen and Ergul Cevriye. (2004) The Social-Emotional Side of Learning Disabilities: A Science-Based Presentation of The State of The Art. *Learning Disability Quarterly*27:1 pages 45-51
- [9]. Cates, J. (1991) Self-concept in hearing and prelingual, profoundly deaf students, *American Annals of the Deaf*, 136, 352-359 (ABSTRACT)
- [10]. Chandra Shekhar, Syed Shehna & Syed Zubaidah. (2012) Self-concept and Mental Health of School Students under the Impact of Television Viewing. *International Journal of Psychological Studies*4:4 pages 63-68
- [11]. Chetri Sita. (2014) Self-Concept and Achievement Motivation of Adolescents and Their Relationship with Academic Achievement. *International Journal of Advancements in Research & Technology*3:5 pages
- [12]. Coopersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: W. H. Freeman & Co.
- [13]. Daniel Larry G. and King Debra A. (1997) Impact of Inclusion Education on Academic Achievement, Student Behavior and Self-Esteem, and Parental Attitudes. *The Journal of Educational Research*91: 2 pages 67-80 (ABSTRACT)
- [14]. Dash Neena. (2006) *Inclusive Education for children with special needs*. Atlantic Publishers and Distributors
- [15]. Engel George L. (1980) The Clinical Application of the Biopsychosocial Model. *The American Journal of Psychiatry* 137:5 pages 535-544
- [16]. Eremie and Chikweru. (2015) Self Esteem Among Private and Public Secondary School Students in Rivers State: Implications for Counselling. *Arabian Journal of Business and Management Review* 5:159 URL: [https://www.arabianjbm.com/pdfs/KD\\_VOL\\_4\\_11/1.pdf](https://www.arabianjbm.com/pdfs/KD_VOL_4_11/1.pdf)
- [17]. Festinger Leon. (1954) A Theory of Social Comparison Processes. *Human Relations* 7:2 pages 117-140 URL: <https://doi.org/10.1177/001872675400700202>
- [18]. Gabel Susan and Peters Susan. (2004) Presage of a Paradigm Shift? Beyond the Social Model of Disability Towards Resistance Theories of Disability. *Disability and Society* 19:6 pages 585-600
- [19]. Geoff Lindsay (2007) Educational Psychology and the Effectiveness of Inclusive Education/Mainstreaming. *British Journal of Educational Psychology* 77:1 pages 1-24 DOI:10.1348/000709906X156881
- [20]. Godeau E, Vignes C, Sentenac M, Ehlinger V, Navarro F, Grandjean H, Arnaud C. (2010) Improving attitudes towards children with disabilities in a school context: a cluster randomized intervention study. *Developmental Medicine & Child Neurology*, 52 (10): e236-42. doi: 10.1111/j.1469-8749.2010.03731
- [21]. Gray Thomas et al (1998) *The Making of the Inclusive School*. Routledge
- [22]. Guidelines for Inclusion: *Ensuring Access to Education for All*. UNESCO 2005: URL: <http://unesdoc.unesco.org/images/0014/001402/140224e.pdf>
- [23]. Hangal Suneetha And Aminabhavi Vijayalaxmi A. (2007) Self- Concept, Emotional Maturity and Achievement Motivation of The Adolescent Children of Employed Mothers and Homemakers *Journal of The Indian Academy of Applied Psychology* 33:1 pages 103-110.
- [24]. Jha Madan Mohan (2004) C.S. Mohapatra (ed.) *Disability Education in India* Chapter 6 Inclusive Education and the Common School in India
- [25]. Jha Madan Mohan (2010) *From Special to Inclusive Education in India: Case Studies of Three Schools in Delhi*. Pearson Education India
- [26]. Kumar, A. (1988). *Battle's Self Esteem Inventory for Children (SEIC) –Indian adaptation*. Varanasi: Prasad Psychological Corporation.
- [27]. Lamport Mark A., Graves Lucheia and Ward Amy. ( 2012) Special Needs Students in Inclusive Classrooms: The Impact of Social Interaction on Educational Outcomes for Learners with Emotional and Behavioral Disabilities. *European Journal of Business and Social Sciences* 1:5 pages 54-69 URL: <http://www.ejbss.com/recent.aspx>
- [28]. Liz Crow. (1996) Including All of Our Lives: Renewing the Social Model Of Disability. In: Colin, Barnes and Geof Mercer, ed., *Exploring the Divide*, Leeds: The Disability Press pages 55-72.
- [29]. Magill, J., & Hurlbut, N. (1986). The self-esteem of adolescents with cerebral palsy. *American Journal of Occupational Therapy*40, 402–407 URL: <https://doi.org/10.5014/ajot.40.6.402>

- [30]. Mrug Sylvi, Wallender JL (2002) Self Concept of Young People with Physical Disabilities: Does Integration Play a Role? *International Journal of Disability, Development and Education*49:3 pages 267-280
- [31]. Olaleye Abiola, Olorunfemi Ogundele, Samson Deji, Oluseye Ajayi, Omolara Olaleye, Titilope Adeyanju. (2012) Attitudes of Students towards Peers with Disability in an Inclusive School in Nigeria. *Disability, CBR & Inclusive Development*23:3pages 65-75
- [32]. Paul Arnold, Chapman Melanie (1992) Self Esteem, Aspirations and Expectations of adolescents With Physical Disability. *Developmental Medicine and Child Neurology*34:2 pages 97-102
- [33]. Puri Madhumita (2004) *Handbook of Inclusive Education for Educators, administrators and Planners- Within Walls Without Boundaries*. Sage Publication
- [34]. PWD Act 1995 URL:[http://newsonair.nic.in/PWD\\_Act.pdf](http://newsonair.nic.in/PWD_Act.pdf)
- [35]. Rosenbaum PL, Armstrong RW and King SM. (1986) Children's attitudes towards disabled peers: A self-reported measure. *Journal of Paediatric Psychology*11 (4): 517-530
- [36]. RTE Act 2009 URL: [http://mhrd.gov.in/sites/upload\\_files/mhrd/files/upload\\_document/rte.pdf](http://mhrd.gov.in/sites/upload_files/mhrd/files/upload_document/rte.pdf)
- [37]. Russo Remo N, Goodwin Emma J, Miller Michelle D, Haan Eric A, Connell Tim M and Crotty Maria. 2008 Self-esteem, self-concept, and quality of life in children with hemiplegic cerebral palsy. *The Journal of Pediatrics*153:4 pages 473-477.e2 DOI: <https://doi.org/10.1016/j.jpeds.2008.05.040>(ABSTRACT)
- [38]. Schmidt Majda and Čagran Branka. 2008 Self-Concept of Students in Inclusive Settings. *International Journal of Special Education*23:1 pages 8-17
- [39]. Sharma Meena. 2016 A study of self- confidence of senior secondary school students in relation to socio-economic status. *American International Journal of Research in Humanities, Arts and Social Sciences*, 13:1 pages 78-80
- [40]. Shields Nora, Murdoch Alison , LoyYijun , Dodd Karen J , Taylor Nicholas F. (2006) A Systematic Review of the Self Concept of Children With Cerebral Palsy Compared With Children Without Disability. *Developmental Medicine and Child Neurology*48:2 pages 151-157
- [41]. Singal N, Education of children with disabilities in India, Education for All Global Monitoring Report 2010 URL: <http://unesdoc.unesco.org/images/0018/001866/186611e.pdf>
- [42]. Singh J D. 2016 Inclusive Education in India – Concept, Need and Challenges. *Scholarly Research Journal of Humanity Science and English Language*3:13 pages 3222-3232
- [43]. Telles Shirley, Singh Nilkamal, Bhardwaj Abhishek Kumar, Kumar Ankur and Balkrishna Acharya. 2013Effect of yoga or physical exercise on physical, cognitive and emotional measures in children: A randomized controlled trial. *Child and Adolescent Psychiatry and Mental Health*7:37 URL: <https://capmh.biomedcentral.com/track/pdf/10.1186/1753-2000-7-37>
- [44]. Thomas Gary and Vaughan Mark. Inclusive Education: Readings and Reflections. 2005; Open University Press. Mc Graw Hill Education
- [45]. Tuli, U. (2018). Inclusive Education: Challenges and Good Practices- A Case Study. In: AK Gupta, R Gupta & B Tandon, ed., *Implementing Inclusion in Schools*, 1st ed. Chennai: Notion Press, 131-152
- [46]. UNESCO 1994. The Salamanca statement and framework for action on special needs education adopted by the world conference on special needs education: access and quality Salamanca, Spain URL: [http://www.unesco.org/education/pdf/SALAMA\\_E.PDF](http://www.unesco.org/education/pdf/SALAMA_E.PDF)
- [47]. UNESCO 2000 World Education Forum Dakar, Senegal 26-28 April 2000 Education for All 2000 Assessment URL: <http://unesdoc.unesco.org/images/0012/001211/121117e.pdf>
- [48]. Vyas B. (2017) A Study of School Environment on Self Confidence among Secondary and Higher Secondary School Students. *International Journal of Indian Psychology*4:3 pages 32-37
- [49]. Wang Huei Lan. (2009) Should All Students with Special Educational Needs (SEN) Be Included in Mainstream Education Provision? - A Critical Analysis. *International Education*2:4 pages 154-161
- [50]. World Report on Disability 2011 ISBN 978 92 4 068521 5 (PDF) URL: [http://www.who.int/disabilities/world\\_report/2011/report.pdf](http://www.who.int/disabilities/world_report/2011/report.pdf)