Teaching Methodology and Social Cognition in Primary School Children: A Study of Semi Urban and Rural, Talk Chalk and Nali Kali Schools

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Abstract: Successful social and emotional adjustment in adulthood is determined by the social cognitive ability of a person. The development of social cognition is very crucial during childhood. Children spend most of their active hours at school and hence the school curriculum, schooling, and teaching methodology influence social cognition to a great extent. Semi-urban and rural children have distinct social environments and hence distinct social needs and learning needs. Both these groups have limited social learning opportunities when compared with their urban counterparts. In this case school experiences become the most influencing social environment. This paper aims at comparing and analyzing the influence of the child centered Nali Kali method of teaching in the government schools of Karnataka and the teacher centered Talk Chalk method of teaching usually adopted by other schools on the development of social cognitive abilities in primary school, semi urban and rural children. The study also emphasizes on the demographic and gender differences in the way the two methods influence the social cognition in children. The study further probes into the different activities and concepts in teaching methodologies which foster the growth of social cognitive abilities.

Keywords: Social Cognition, semi urban, rural, Nali Kali, Talk Chalk, teaching methodologies.

I. INTRODUCTION

Interest in the nature and development of social cognition is an area of current interest in the field of Psychology. The study of social cognition in children is a crucial one due to its impact on later life emotional, social and personal adjustments. By the time children enter school, they have a variety of experiences with the society, its understanding and how to deal with it. But when they enter school, new challenges force the children to re think, reconceptualise and learn new concepts of the social world around them.

During the early childhood years children go through critical stages of development where an enriched educational and learning system can have a long lasting effect on their cognitive and social cognitive development. The class rooms bring new challenges both academic and social, that reinforces and modifies the already existing individual differences in these children (Newman, 2000). During the school years there are profound social cognitive changes that influence children’s view about their social world (Paris & Cunningham, 1996). Eggum et al. (2011) found a pattern of data consistent with the view that early socio cognitive skills predict high quality social functioning across time.

Social cognition and Non-Social Cognition are two different aspects. While social cognition includes abilities to understand emotions, relationship between social beings, social scenarios, facial expressions, body language, thoughts, feelings, mental states and other socially related aspects, non-social cognition refers to the understanding of the physical non-social entities around us. Both are developmental in nature and are crucial for our optimal living. They differ primarily in the level of affect involved (Flavell, 1977). But study in social cognition ruefully lags behind when compared to studies in non-social cognition.

The study of social cognition has evolved from early studies involving face perception, empathy and sympathy, role taking, person perception, social intelligence, emotional intelligence, social perception, social competence and others. These abilities develop in early childhood and are nurtured through childhood and adolescence leading to social and emotional adjustments of these individuals into adulthood. Role taking is the key mechanism through which people develop a self and the capacity to be social, and it has a very specific definition: “Role taking is the process through which we place our self in the position (or role) of another in order to see our own self” (Allan, 2012, p. 230). It is the major mechanism through which we are able to form a perspective outside of ourselves. There are two models of interpersonal influence. Selman (1974), Selman and Byrne (1974) have formulated the most extensive model. It deals specifically with the changes in role taking skills of the child and the adolescent, conceptualized as stages. It is suggested that prior
to six years of age the child is ego centric, in the sense that he makes no difference between his views of social situation and the actual situation. This is the reason why in the present study only children above 6 years (Primary school) have been taken into consideration. During middle childhood from 6 to 10 years of age, the child achieves two important representations. First, he is able to infer other’s intentions, feelings and thoughts with a good amount of accuracy. Secondly, children describe others less in terms of their surface qualities and more in terms of their covert attributes, attitudes, abilities and interests. For young children, two of the most important tasks they face are learning how to communicate and learning how to think about themselves and the social world around them. The cognitive developmental theory led by Kohlberg, (1981), Bruner, (1947) and Vygotsky, (1934), emphasizes the importance of social and emotional behavior of the child’s developing thought processes and the exploration of objects.

There is much interest in the impact of early childhood and primary school education on the social and cognitive development of children. The teaching and learning environment in a school could substantially influence the development of social cognition in children. Ames (1992), in his study has examined how the structure of learning environments can make different goals salient and consequently affect how children think about themselves, their tasks and others. Pedagogy generally implies the art or science of teaching or in general terms the methodology used to teach children. Learning environments refer to the diverse physical locations, contexts, and cultures in which students learn. It also encompasses the culture of a class, the way the children interact, the way the teachers organize the class and the role of the teacher in the classroom among others. India in the past decade has seen an enormous shift in paradigm with reference to education of young children. There have been very few studies in India with respect to social cognition and this paper aims to evaluate the contribution of the teaching methodology on the social cognitive development of primary school children.

The two core polar categories of teaching, namely the Karnataka state sponsored child centered Nali (fun or enjoy) Kali (learn) method of teaching for primary school and the teacher centered Talk Chalk method of teaching which is widely practiced in most of the non-government primary schools constitute the independent variable in this study. The Nali Kali (enjoys and learns) method envisions breaking down of the existing hierarchy between the students and the teacher in a traditional teaching situation. The learning takes place systematically in an interactive manner where the children are grouped according to age wise competencies. Learning situation involves songs, dances, storytelling, educational toys, models, charts and other activities which are highly energetic and familiar because these materials are either prepared by the children themselves or the teacher. Presently in the state of Karnataka, this method has been effectively implemented in classes 1, 2 and 3 of all government schools.

School education necessarily involves the children’s success both academically and socially and impacting their future in a positive manner. A good model of teaching is one where the children are not just thought to be thinkers and receivers but also fellow human beings. An effective educational system is one which has the most desirable combination of learning and teaching practices. A number of such practices could include the socio cultural method of Vygotsky (1978), Developmental theory of Piaget (1936/1963), Experiential method of Dewey and Kolb (1938 &1984), Ecological learning of Bronfenbrenner (1979), and Collaborative learning of Wenger (1998). Perry & Weinstein (1998) discuss the importance of classroom, teaching and school conditions in early school going children and their impact on social adjustment, social competence; in other words the social cognition of the children.

A class room situation has multiple interrelated and interconnected factors affecting both learning and teaching. As children enter a formal situation of schooling there are two important social structures which influence them significantly both academically and socially, namely the school system which includes the teaching methodology, curriculum, school and other related factors and the peer group and peer group culture. (Hartup, Higgins, & Ruble, 1983). Nali Kali and the traditional school methods have different permutations and combinations of both these social structures. Hence their influence on the children and their social development would be different.

There has been no research in the field of Nali Kali Methodology and its influence on social cognition. Hence to study and understand the functioning of this method, reference to various researches and studies related to activity based learning and other student centered learning methods which function similarly to the Nali Kali method are taken into account. Children spend around 25 %, of their total time and around 40 %, of their active awake time at school. Naturally the school influences their thoughts and actions to a very high extent. According to the sociocultural theory (Vygotsky, 1978), a child’s cognitive development is integrally linked to the social experiences, in particular with more knowledgeable social partners. The child is not a passive recipient of knowledge from more skilled individuals. Rather, the child is an active participant in social interaction with other individuals within a social cultural context, which in this article, is the school. On entrance to the school, the teachers and more enabled or knowledgeable peer become important. Assistance, coaching, questioning and guided participation is not available in a teacher centered teaching methodology. On the contrary the Nali Kali schools are developed on these very ideologies where by these techniques are used through “scaffolding.” The teachers and the more knowledgeable children support the child to the
optimal extent. This helps the children not only academically but also helps internalize the adult’s or peer’s direction of patterns of discourse and take over other person’s regulating role and goals. In this way the child gradually comes to regulate his or her own development and learning. (Rogoff, 1990). The Nali Kali method encourages collaborative “learning communities”. Such communities stress conversation, discussion and inquiry, student’s participation by formulating and evaluating questions, hypotheses, evidence and conclusion. (Brown & Campione, 1994). Added to this the Nali Kali environment fosters a platform where seeking help from a peer or a teacher is the least embarrassing due to the various group activities. This is a very crucial aspect because at the start of primary school children fear the negative reactions of being branded a dull student if help from others is sought (Newman & Goldin, 1990). Added to the teachers other children too become prominent socializing agents. (Rubin, Bukowski & Parker, 1998). School children spend many hours each day with their classmates and over the course of frequent interactions, students influence one another in multiple ways. (Berndt, 1999). These interactions serve to foster social goals (Birch & Ladd, 1996), social comparisons (Burhans & Dewck, 1995), competition, competency and self-worth (Ryan & Stiller, 1991), collaborative discourse (Cooper et al., 1982), etc. The Nali Kali environment encompasses groupings like the peer assisted group where the children learn with each other’s support naturally.

II. METHOD

Participants

The sample consisted of 720 primary school children of Thirthahalli and Koppa taluks of Karnataka state in India. The sample was divided into two distinct groups based on the methodology of teaching in the schools, namely the Nali Kali schools which adopted the activity based learning and the schools which adopted the direct instruction method of teaching or the Talk Chalk method. The two groups were matched in number, gender, age and number of years in formal education. They were further divided into two equal groups of rural and semi urban samples. The semi urban sample was collected from the schools of Thirthahalli town and the rural data from the schools in the rural villages of Koppa and Thirthahalli taluks.

Table 1. The distribution of the research population and their mean age and standard deviation

<table>
<thead>
<tr>
<th>Demography</th>
<th>Teaching Method</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi Urban</td>
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<td>7.38</td>
<td>0.79</td>
<td>Male</td>
<td>90</td>
<td>7.24</td>
<td>0.67</td>
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<td></td>
<td></td>
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<td>Female</td>
<td>90</td>
<td>7.53</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Talk Chalk</td>
<td>180</td>
<td>7.37</td>
<td>0.93</td>
<td>Male</td>
<td>90</td>
<td>7.03</td>
<td>0.644</td>
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<td></td>
<td>Female</td>
<td>90</td>
<td>7.66</td>
<td>1.07</td>
</tr>
<tr>
<td>Rural</td>
<td>Nali Kali</td>
<td>180</td>
<td>7.47</td>
<td>0.87</td>
<td>Male</td>
<td>90</td>
<td>7.48</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>90</td>
<td>7.46</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>Talk Chalk</td>
<td>180</td>
<td>7.49</td>
<td>0.87</td>
<td>Male</td>
<td>90</td>
<td>7.46</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>90</td>
<td>7.52</td>
<td>0.87</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>720</td>
<td></td>
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</tr>
</tbody>
</table>

Procedure and Materials

A quasi experimental Ex post facto research design was adopted as the differences in the teaching methodology already existed in the two groups. As the investigator was not able to control and explain all the variables in the study an intact matched comparison group was used to eliminate the influence of the other factors. Purposive random sampling method was used to construct the database. Data for the test was collected majorly between the years 2010 and 2013.
However the test was a result of a series of Masters dissertations at the department of Psychology, University of Mysore (Shashikala, 1985; George, 1986; Shylaja, 1988; Noronah, 1990; Asha Hiremath, 1993; Abharna, 2001; Vinayarathana, 2000; Kallahalla, 2002) and a UGC minor project in 1999-2000. Each child was administered the Children’s Pictorial measure of social cognitive ability (Kiran Kumar, 2001; Archana Bhat, 2002; Salagame & Kallahalla, 2015). This test is designed for Indian school children and is a semi-projective test used to measure the social cognitive abilities of children. It consists of ten cards depicting different social situations which are in the increasing order of social complexity. The social situations included in these pictures are of play home, park, home, celebration of national and traditional festivals, and other complex situations where the child has to decipher facial expressions, interpersonal dynamics and build an understanding of the social situation depicted using the cues present in the card and his/her personal experiences too. All the pictures are directly or indirectly related to the child’s social and personal world. The child is asked to respond to each card and the responses are qualitatively and quantitatively analyzed according to the standard scoring procedure of the test to reflect not only the total social cognitive ability but also the different components of social cognitive ability. The test has a reliability score of 0.833 and validity score of 0.79. Other demographic details were taken using the Socio Economic status Scale by Beena Shah (1986). Since the data was not normal across the categories, independent t-tests were carried out to evaluate the significance of mean differences across the categories.

### III. RESULTS

#### Table 2: The distribution of the sample and their means and standard deviation for total social cognitive abilities

<table>
<thead>
<tr>
<th>Demography</th>
<th>Teaching Method</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi Urban</td>
<td>Nali Kali</td>
<td>180</td>
<td>72.18</td>
<td>24.70</td>
<td>Male</td>
<td>90</td>
<td>71.77</td>
<td>20.81</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>90</td>
<td>72.59</td>
<td>15.34</td>
</tr>
<tr>
<td>Talk Chalk</td>
<td></td>
<td>180</td>
<td>68.68</td>
<td>22.45</td>
<td>Male</td>
<td>90</td>
<td>68.33</td>
<td>23.31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>90</td>
<td>69.02</td>
<td>21.68</td>
</tr>
</tbody>
</table>

An independent sample t-test analysis conducted on total social cognitive ability scores in children under Talk Chalk and Nali Kali methods of teaching, revealed that the children who were taught under the Nali Kali method of teaching exhibited better social cognitive abilities (M = 74.69) when compared to their Talk chalk method counterparts. (M = 69.79). This difference is significant t = -3.02, p = 0.003. (See Table 3)

#### Table 3: t-test Results comparing children of Talk Chalk and Nali Kali teaching methodologies on Total Social Cognitive Ability Scores

<table>
<thead>
<tr>
<th>Teaching Methodology</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Talk Chalk</td>
<td>360</td>
<td>69.79</td>
<td>23.59</td>
<td>-3.02</td>
<td>718</td>
<td>.003</td>
</tr>
<tr>
<td>Nali Kali</td>
<td>360</td>
<td>74.69</td>
<td>19.67</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4. t-test comparing semi urban and rural children of Talk Chalk and Nali Kali teaching methodologies on Total Social Cognitive Ability Scores

<table>
<thead>
<tr>
<th>Demography</th>
<th>Teaching Methodology</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semi Urban</td>
<td>Talk Chalk</td>
<td>180</td>
<td>70.91</td>
<td>18.24</td>
<td>-5.56</td>
<td>358</td>
<td>.579</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>180</td>
<td>72.18</td>
<td>24.70</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>Talk Chalk</td>
<td>180</td>
<td>68.68</td>
<td>22.45</td>
<td>-3.74</td>
<td>358</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>180</td>
<td>77.20</td>
<td>20.75</td>
<td></td>
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</tr>
</tbody>
</table>

Though on the whole the two methodologies differed significantly in their contribution to social cognition, in the semi urban population their levels of contribution were not significant (p = 0.579). But in contrast a very high level of significance (p= 0.000) was observed in the rural group in the two methods of teaching towards social cognitive abilities. Children of the rural Nali Kali schools exhibited significantly higher levels of social cognitive abilities (M= 77.20), when compared to their Talk Chalk school counterparts. (M = 68.68). The rural Nali Kali school children exhibited the highest social cognitive ability and the rural Talk chalk teacher centered school children the lowest when all the four groups are compared.

Table 5. t-test comparing Semi Urban male and female children of Talk Chalk and Nali Kali teaching methodologies on Total Social Cognitive Ability Scores

<table>
<thead>
<tr>
<th>Gender</th>
<th>Teaching Methodology</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Talk Chalk</td>
<td>90</td>
<td>70.51</td>
<td>26.45</td>
<td>-0.64</td>
<td>178</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>90</td>
<td>72.59</td>
<td>15.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Talk Chalk</td>
<td>90</td>
<td>71.30</td>
<td>22.95</td>
<td>-0.14</td>
<td>178</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>90</td>
<td>71.77</td>
<td>20.81</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

The mean scores of the male students in the Talk chalk schools was the least in the group (M= 68.33) when compared to the female students of talk chalk schools (M = 69.02) and Nali Kali schools (M = 74.92). The students who benefitted the highest in terms of social cognitive abilities from the Nali Kali method of teaching were the rural male students. (M=79.48).

IV. DISCUSSION

There were no statistically significant differences in social cognition scores in male and female samples of semi-urban population, in relation to teaching methodology.

The most interesting results were found in the rural sample where the contribution of the method of teaching was very significant towards social cognitive abilities in the male school children. (p=0.001) (table 6).

Table 6. t-test comparing Rural male and female children of Talk Chalk and Nali Kali teaching methodologies on Total Social Cognitive Ability Scores

<table>
<thead>
<tr>
<th>Gender</th>
<th>Teaching Methodology</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>T</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Talk Chalk</td>
<td>90</td>
<td>69.02</td>
<td>21.68</td>
<td>-1.84</td>
<td>178</td>
<td>0.070</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>90</td>
<td>74.92</td>
<td>21.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>Talk Chalk</td>
<td>90</td>
<td>68.33</td>
<td>23.31</td>
<td>-3.47</td>
<td>178</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Nali Kali</td>
<td>90</td>
<td>79.48</td>
<td>19.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For most part, the psychological study of social cognition and gender differences has been traditionally attached to the question of which gender is superior in social cognitive measures. To evaluate the contribution of school teaching methodologies on the gender difference in social cognitive abilities independent sample t- test analyses were carried on semi urban and rural children separately (Table 5). The test was carried out to observe how rural female and male children and semi urban female and male children of Talk Chalk and Nali Kali schools differ in their Social Cognitive abilities.
abilities with respect to gender? (d) What were the reasons for each of the methodologies to differ in the extent of enhancing social cognition of primary school children?

The child centered Nali Kali method of teaching seems to have contributed for social cognitive development of the rural male children population followed by the rural female children population. The ones who exhibited the lowest social cognitive abilities were the rural talk chalk school children. This method of teaching was not as successful as the Nali Kali method in kindling the social cognitive skills of children in the rural environment.

With the results being so, it was very critical to analyze the reasons for the positive effect that the Nali Kali method had on the rural children when compared to the Talk Chalk method of teaching. In general the children of the rural areas primarily had less exposure to different social situations and concepts as compared to their semi urban counter parts. The television which is an integral part of the semi urban population is predominantly absent or even if present is functionally negligible because of the frequent power cuts. Hence awareness of social events and other social influences were minimal in the rural areas. Added to this technology in all forms (mobile, internet, radio, DTH etc.) and social learning conditions like various social events, heterogeneous population, transportation, movies, and other conditions are relatively rare in these areas.

With regard to the social cognitive abilities, Nali Kali method is seen to be the more significant contributor of the two. This method which can also be compared to Activity based learning or Child centered methodology is based on systematic age wise competency, interactive learning situation. Here the formal system of roll calls, examinations, promotions and rankings which are deemed unhealthy teaching and pedagogical practices for young children are omitted. It encompassed activity learning and a unique classroom management system which is activity in groups which range from fully teacher assisted groups to self-learning groups. Changes in the learning content was also easily possible due to the card system and evaluation through games as a part of the daily routine makes testing a painless experience for children (SSA Karnataka Report on Nali Kali, YEAR)

Unlike the overall picture of the success or shortcomings of the two methods, understanding their implications and influences at the demographic level, need a more critical view of the socio cultural differences that exist in the semi urban and the rural environments and the relevance of the teaching methods, learning environment and curriculum to these contexts. As evident in the statistical results, with reference to the semi urban population there is a negligible difference in the way the two methods have influenced the social cognitive abilities of the children. A closer look at this population reveals that neither do the children here have the high level of exposure to social events, situations and communication as the urban children, nor are they deprived of opportunities to such learning as the rural children. Since these places are small town environments, the different social facilities like parks, shopping areas, offices, playgrounds, religious areas, and other socially relevant areas are freely available to everyone and shared alike in a limited geographical location. (Cards 2 and 8 of the test measure these aspects). Similarly due to this limited space, people of different socio economic strata, religions, professions and age groups are easily available for interaction and social observation due to the geographical clusters or townships. The people do not vary prominently in their languages, culture, ethnicity, and traditions and hence making it a rather homogenous population in this respect. So in a way the children come from a similar social understanding and hence any difference in their social cognitive abilities should be attributed to the method of teaching at school. But on the contrary the methods seem to have a uniform influence on social cognition. To understand this further it is necessary to understand the nature and background of the students who attend these schools.

In Karnataka state, most of the Non Nali Kali Schools are private schools which have a comparatively higher fee structure. But when compared to the urban private schools the rural and semi urban schools have a lower fee structure. The annual fee structure does not cross more than INR5000 annually. Many of these schools are also aided schools, which mean the fee structure is minimal and the children also enjoy the government benefits like mid-day meals. With the introduction of the Right to Education act in 2009, 25% of the total seats in these schools are reserved for children of under privileged homes of the neighboring vicinity, free of cost. Thus children of families where education is given even slight importance are sent to these schools irrespective of their social and economic backgrounds.

On the contrary the Nali Kali government schools are attended by children from the lower socio economic strata, where the parents are predominantly laborers with a high incidence of alcoholism and domestic strife. The children are many times sent to school with the primary motive being the food given to the children and the rice and other nutritional items that are sent home. Interaction with the teachers and headmasters of these schools reveal that there are high instances of absenteeism and the children have to be got back to school from their homes very frequently. Parents are usually not in a position to understand the educational needs of their children or their financial need is such that the child needs to work. Negative family interaction has an unfavorable effect on the children’s social cognition and subsequent social competence with peers (Pettit et al. 1991). The children therefore in the semi urban Nali Kali schools are the filtered residual of the total children and have the weakest, unfavorable and often skewed social learning outside school. Educating these children is a herculean task and it is commendable that the Nali Kali teaching methodology has
been able to bring these children on par with the other privileged children.

The class room environment gives the Nali Kali children a chance to interact, share and voice their thoughts which is not possible in their home environments. The teaching through charts and stories enable the children to understand and analyze social situations. The interactive class environment, teaching through dance and drama, and the grouping system enhance role play, social judgment, self-concept, self-awareness, empathy, affective perspective taking, imagination and integration of social information. It introduces the child to a healthy, encouraging environment which acts as a fertile ground for the child’s social cognitive abilities to grow. Thus, though both the methods of teaching show no significant difference in terms of social cognitive abilities in semi urban children, the Nali Kali system has been more successful in enriching the social cognitive abilities of truly under privileged children.

In the rural environment, the socio, economic, cultural and demographic differences are varied. The equation with regard to the factors effecting social cognition is in total contrast to the ones in semi urban setting. The population in rural agricultural areas is scattered over a large geographical area. Though the children attend the same schools, they speak different languages, follow different cultures, religions, traditions and are from different ethnic backgrounds. The interaction with others is limited to this geographic scatter and is also isolated in terms of social learning opportunities. E.g. There is one single house for an area of 1- 1.5 kms which houses a family and this houses is accompanied by 1-2 families of the laborers who work in the farms belonging to the main house. Usually as they are interior places there is a lack of internet, phone and mobile connectivity. And the Malnad area where the data was collected from receives rainfall for almost 6 months a year and this makes commuting also difficult. The children have to travel to the bigger towns to witness social happenings and their social gatherings are limited to their small family or religious groups. The fodder for their social cognitive learning is limited to their small family units which parents are usually uneducated or less educated. Parents tend to be busy in agricultural related activities and hence give very limited communication opportunities to the children. In such an environment, it is very crucial that the schools give the children the social opportunities and learning contexts, which are otherwise not available to them. A method that is rich in its curriculum content, presented in a child friendly learning situation, with socially and culturally relevant study materials and child centered is a pragmatic solution. The Nali Kali schools fit into this perfectly and hence are more successful in delivering to the school children.

On the other hand the rural Talk Chalk schools can be seen failing in all these aspects. The teacher centered lecture method being child unfriendly fails to evoke curiosity or interest in a child. Since the concepts are taught rather than experienced or seen (in cards), they are alien to the children. Added to this many of these schools are English medium schools, where even the basic language structures and concepts are alien and distant to the children. The already socially deprived children do not connect to either the lectures or even the pictures depicted in the text books. Since they become passive listeners they fail to learn to work in groups, develop leadership qualities, help their peer, work in their own capacity and even to take help from their own teachers as it’s an embarrassing thing to do so in front of the whole class. On the whole they become deficient in feelings of empathy, recognition of facial gestures, and recognition of emotions, perspective taking, imagination, social affiliating, group dynamics and other social aspects of social cognition. All these which are hardly possible in Talk Chalk environment are a part of everyday Nali Kali curriculum. The students don’t have to strive to do these but it comes to them naturally in the interactive Nali Kali environment.

The next discussion deals with the gender difference in the children studying under the two methods of teaching. As evident in the results of the semi urban data, there is no significant difference in the levels of social cognitive abilities in the two genders in semi urban children. However in the rural environment there is a significant difference in the way the methods of teaching has influenced the social cognitive abilities on the two genders. The female population has not been influenced to the extent of the male population. The social cognitive ability of the rural Nali Kali school boys is the highest in the whole test sample and that of the rural Talk Chalk school boys is the lowest. Nali Kali has had the most significant positive effect on the social cognitive abilities in rural male children. In case of rural female children it is found that there is a higher degree of absenteeism when compared to rural male children and possibly this explains the non-significant difference in them. According to Kapur, Devesh and Mehta, (2004) it is estimated that for every 100 girls that enroll in school in rural India, only 40 will reach grade 4. Some studies suggest that parents are more likely to incur private expenditure for sons than daughters. According to the Karnataka human development report of 2012, there is a higher rate of absents in rural girl children. Taking care of younger siblings and helping out at household chores due to absence of elders at home primarily because the elders are off to work, attending the employment by the National Rural Employment Guarantee Schemes, where even the elderly at home go for the seasonal work. Hence the influence of the Nali Kali method on the two genders is predominantly positive; the extent however is largely determined by the socio cultural factors prevalent in the rural environment. Further, parents lack the resources to provide quality education for all their children, and therefore invest scarce resources in boys, for whom the market returns to the investment in education are perceived to be higher as compared to the girls. (Cheney, Ruzzi & Muralidharan, 2005).

Taking into consideration that the Nali Kali method is indeed a more fertile method of teaching with respect to
social cognition, when compared to the Talk Chalk method, it is imperative to analyze the strengths and weakness of both the methods. According to the case study “Nali-Kali: Innovations in Primary Education in Karnataka, 2010, submitted by Kaul (http://indiagovernance.gov.in/files/nail_kali_innovations_in_primary_education_in_Karnataka.pdf), this unique method reflects the social reality and hence enables the children more regularly and happily. The activity cards and grouping allows the child to progress at its own pace without any pressure. The charts being colorful and attractive evoke curiosity and imagination in the child. A similar curriculum intervention by Shure and Spivack (1982) evoked positive social behavior, peer group interaction management and better problem solving and social skills. A child who has discontinued education can enter at the same level again without feeling humiliated. A child’s social cognition is directly associated with the peer group and the influence they have on the child (Bredekeng, Bowen, Rondeau & Vitaro, 1999). Instructions by an adult in social skills, participating in games related to social skills with peer and feedback all influence the positive development of social skills in children (Oden & Asher, 1977). The interactive class room dynamics thus positively influence the social cognition of not only normal children but also children with learning disabilities. The unique grouping system, eliminates the danger of labeling or stigmatization of weaker children (January, Casey & Paulson, 2011). The closeness to the teacher enhances the social adjustment of the children (Birch & Ladd, 1997). In a Nali Kali school the teacher squats down on the floor with the children and the proximity with the children is also very high. This concept is a part of the representation in card number 1 of the test. The child perceives the teacher as a mother figure and is more at ease with her in his native tongue. However in a Talk Chalk school, the teacher stands and lectures at a distance, this whole concept is colonial and distant to a child who fails to connect socially and emotionally with the teacher. In schools where the medium of instruction is English, the problem is far reaching as even the language is alien and distant from the native tongue of the child and does not connect to it socially. The card pictures in the Nali Kali schools are social reality oriented giving the child a window into a social world that it has never experienced and also to interpret it according to their own imagination when compared to printed text books with words which make very less sense to primary school children. This supports the Vygotkskian notion that children’s development can be scaffolded during an already rich period of development to further support their social emotional understanding (Bredekamp & Copple, 2009). The trajectory of the Nali Kali method would lead to better socially skilled and adjusted individuals.

V. CONCLUSIONS

The children of the semi urban and specially the rural environments need better facilities for social learning and developing their social cognitive skills. The Nali Kali method induces a positive learning, where the children develop these skills within their school curriculum frame work. Since rural children are specifically deficient in their social learning opportunity, methods like the Talk Chalk, which is teacher centered are at loss in developing social cognitive skills. Since more and more children are getting enrolled in such schools, group activities and cultural and social relevant study materials would enhance the social learning environment. More research is needed to specifically study the Talk Chalk schools in rural areas for more remedial measures failing which the children would end up with stunted social cognitive development and have problems with social and emotional adjustments in later life.

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