



## Study of the Perception of Special Educators on using Collaborative Artwork Activities for Development of Social Communication Skills among Children with Nonverbal Learning Disability

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### ABSTRACT

Social acceptance is one of the key area for survival in the world. Everyone wants to be a part of group where he/ she can feel safe and related to each other. Quality of life is fully determined by how much and how well a person interact socially. Children with nonverbal learning disability lack in their social skills and hereby miss out the essential need for leading a better and blissful quality of life. The study is conducted to find out the perception of special educators on usage of collaborative artwork activities as an intervention for developing social communication skills among children with nonverbal learning disability. The reason why the study is chosen is that none of the study has been conducted to know perception of special educators for children with nonverbal learning disability for their development in social communication skills using collaborative artwork activities. The study is conducted through survey method. The sample taken for the study was 80 special educators. The study was completely restricted to special educators of Delhi-NCR. Only those special educators were considered who were registered in Rehabilitation council of India. A survey form was developed by researcher in which four collaborative artwork activities were taken and on the basis of those activities 32(8 in each activity) close ended statements were there. The data was collected through online mode in the form of Google forms. Then it was analysed using various statistical techniques like mean, standard deviation, t test. From the analysis it has been found that collaborative artwork activities can be used for development of social communication skills among children with nonverbal learning disability according to special educators' perception. It was also found that gender and nature of organisation in which special educator work make a significant difference in special educators' perception.

**Keywords:** *Children with Non Verbal Learning Disability, Social Communication Skills, Special Educators, Collaborative Artwork Activities.*

### **INTRODUCTION:**

Childhood is one the best phase in one's life. In this phase some children are highest scorers while some experience difficulties in academic performance. Children having specific learning disabilities face a lot of various multifaceted and interconnected difficulties, frequently covered up or unpretentious, which influence child's learning. There is inconsistency between children with specific learning disabilities, they are commonly depicted as people of average intelligence quotient, who experience issues in handling data and have unforeseen scholastic troubles that can't be clarified based on other analyzed disabilities. They display quality and achievement in other learning and preparing regions. In spite of the fact that learning disability is deep rooted, its effect on one's life can vary on the basis of person's surrounding. Learning disability comprises many inabilities that may occur in different regions of cognitive processing. These difficulties may vary in terms of functions that are effected and the degree of effect felt by learner. In children with nonverbal learning disability key primary deficiencies in some aspects of touch sensitivity, visual perception, and dynamic psychomotor abilities and in coping with new influences often contribute to tertiary deficits in the form of idea, problem-solving and hypothesis testing skills. Such shortcomings eventually contribute to major problems in language content and functional dimensions.

Verbal functioning in learners with nonverbal learning disability display high vocabulary and word recognition capabilities, high speech output. These learners may know excessive facts and details about something however their speech is less meaningful as they tend to be straightforward. Students with non-verbal learning disabilities cannot establish a visual representation by simply and concretely retaining their words as distinct units. This affects the ability of the learner to understand the language function deeper and more integrated. Moreover, quite a bit of our relational and social correspondence relies upon our capacity to comprehend what is being said as well as the aim or the importance behind what is being said. Since learners with nonverbal learning disability are incapable to identify nonverbal characteristics of conversation, they are also incompetent in copying them. This makes their conversation unsuitable for the situation. It limits them to social contact, constructive dialog, satire and sarcasm. Nonverbal dysfunction constrains their capacity to perceive examples and make associations dependent on likenesses and contrasts. This blocks comprehension of circumstances and logical results, expectation, speculation, revelation learning, experimentation learning, critical thinking, adaptable intuition (adjusting to new by associating with known), and basic reasoning.

Collaborative art work activities efficiently maintains individual and social treatment objectives just as community concerns. Collaborative art work activities are utilized to improve psychological and sensory-motor functions, encourage confidence and mindfulness, develop passionate flexibility, advance understanding, upgrade social aptitudes, decrease and resolve clashes and misery, and advance cultural and natural change. Sensation, tangible, perceptual, and representative opportunities welcome elective methods of responsive and expressive correspondence, which can bypass the restrictions of language. These activities can make a great change in student learning as it incorporate the student with his/her complete sense of belonging with others and make him /her comfortable to different tasks that uses most of his/her mind and physic.

#### ***Objectives of the study:***

1. To study perception of special educators on using collaborative artwork activities for development of social communication skills among children with non-verbal learning disability.
2. To compare the perception of special educators on using collaborative artwork activities for development of social communication skills among children with non-verbal learning disability on the basis of the demographic variables as:
  - a) Nature of Organization
  - b) Gender.

#### ***Hypothesis for the study:***

1. There is no significant difference between the perceptions of special educators on using collaborative artwork activities for development of social communication skills among children with non-verbal learning disability on the basis of the demographic variables. This hypothesis have sub hypothesis as follows:
  - a) There is no significant difference between the perceptions of special educators on the basis of the nature of organization in they work.
  - b) There is no significant difference between the perceptions of special educators on the basis of gender.

## REVIEW OF LITERATURE:

**Semrud.M-Clikeman** (2010) conducted a study 'Direct and Indirect Measures of Social Perception, Behavior, and Emotional Functioning in Children with Asperger's Disorder, Nonverbal Learning Disability, or ADHD' for Understanding social interactions is crucial for development of social competence. Sample size for the study is 324 children with nonverbal learning disability (NLD), Asperger's Syndrome (AS), Attention Deficit Hyperactivity Disorder-Combined (ADHD-C), Attention Deficit Hyperactivity Disorder-Predominately Inattentive (ADHD-PI) including control group. The target of the study is to utilize immediate and roundabout proportions of social observation to discover potential contrasts among children with nonverbal learning disability (NLD), Asperger's Syndrome (AS), Attention Deficit Hyperactivity Disorder-Combined (ADHD-C), Attention Deficit Hyperactivity Disorder-Predominately Inattentive (ADHD-PI). Results indicated that the NLD and AS groups encounter the most trouble in understanding emotional and nonverbal prompts on the direct measure. Furthermore, children with AS or NLD showed noteworthy indications of pity and social withdrawal contrasted with different groups.

**Kato.D** (2018) conducted a study 'Improving Social Skills through Collaborative Artwork and Group Activity'. Objective of the study was to find out the effect of collaborative block creation from the perspective of social skills and trust. Hypothesis of the study proposed that social abilities, trust in others, and trust in oneself would essentially increment through collaborative expression through block creation.

Sample size for the study was 39 Japanese healthy high school students (6 males and 33 females; all participants were either 16 or 17 years old) without any diagnosis of developmental and mental disorders, and divided into groups. Green LEGO® plastic plates (50 × 50 cm) and different types of blocks were given to each group. The outcome shows that the social skills ( $t(38) = -4.16, p < .01$ ) and trust in others ( $t(38) = -2.28, p < .05$ ) were fundamentally higher after the action than previously. Conversely, the score of trust in oneself was not changed essentially ( $t(38) = -0.48, ns$ ). The results obtained in this study show that collaborative block creation effectively affects samples' social abilities and trust in others. It likewise proposes that collaborative block creation could be valuable in instruction, treatment, and multifaceted gathering settings as a mode for correspondence.

**Freilich.R** (2010) conducted a study 'The contribution of art therapy to the social, emotional, and academic adjustment of children with learning disabilities'. Study finds out the contribution of art therapy to the treatment of children with learning disability and assesses interventions and their relationship with results. The study include 93 children with learning disability in which 42 children were in the experimental and 51 children in the control group. The study involves comparison between academic assistance given with art therapy and only academic assistance. The finding shows good results in change under art therapy conditions and comparative advancement in scholastic accomplishment under either condition. In spite of the fact that children in the control group scored higher on the process variables (bonding and impression of therapy). An evaluation done in different sessions showed that the two interventions were very different: the academic intervention focused on improving learning experiences, though the collaborative art work activities intervention focused on emotional exploration and awareness-insight development.

**Mason.C et al.** (2004) conducted a study "How students with disabilities learn in and through the arts: An investigation of educator perceptions". The aim of the study is to recognize overall themes that are used for children with disabilities using art across the VSA arts affiliate network and come up with an evaluation framework that will basically on academic, social and artistic skills of children with disabilities. As a sample of the study data has been collected from 10 sites. In total 60 teachers, and 32 others (primarily arts specialists or artists-in-residence) participated in the 16 focus groups across the 10 states. The study was following interviews with the samples and each interview was recorded. VSA site directors along with their staff members were also interviewed. Focus group interviews were conducted with teachers, teaching artists, administrators, and others involved with VSA arts programming, to gather information on arts integration, collaboration, and their impact on student achievement. The findings of the study was that 48% of the focus group participants indicated that they used art daily, 21% indicated once a week, and 9% once in month. Different interviews from participants tells importance of art in increasing learning in children with disabilities. This was also mentioned that art support communication and held children with disabilities in appropriate ways. It allows children with disability to express his/her feelings, anger, and anxiety with the help of art.

## METHODOLOGY:

### *Design of study*

The study is conducted through survey method of research for the purpose of data collection with the help of questionnaire.

### *Sample*

The study includes special educators of Delhi-NCR having registration in central rehabilitation register. The data was collected from eighty special educators. Convenient purposive sampling was done as, only the special educators of Delhi-NCR schools having CRR Number were allowed to fill the questionnaire.

### *Sampling Units*

Eighty special educators from the schools of Delhi-NCR having CRR NO. Were taken as sampling units. To justify the objectives of the study, the sample subjects were categorized into male and female on the basis of gender. On the basis of nature of organisation, it was categorised in private and government sector special educators.

### *Tool*

The main purpose of the study is to get to know about special educator's perception about the idea of using collaborative artwork activities as an intervention technique for children with nonverbal learning disability. So, that a new technique could establish and help children with nonverbal learning disabled children in their lacking social communication skills. The study use self-made tool made by researcher itself.

The researcher has made a questionnaire for survey as a tool. The survey form consist of two sections Part A and Part B.

- Part A collect information about the variables like Email ids , name of the participant, age , gender, stream, academic qualification, rehabilitation qualification, CRR No. , school name and address, type of organization in they work and experience gained by special educators. Various options has been given in variables like age, gender, stream, academic qualification, rehabilitation qualification, type of organization in they work and experience. For example: for age variable options of male and female were given.
- Part B consist of 4 sections and each section has an activity and every activity consist of 8 close ended statements. The special educator has to mark the most appropriate option for development of social communication skills among children with nonverbal learning disability for each activity. Five options strongly agree, agree, neutral, disagree, strongly disagree were given for each statement for marking purpose. The activities chosen by researcher for questionnaire were made and modified by researcher itself for development of social communication skills of children with nonverbal learning disability.
- For scoring, there were in total 32 close ended statements (8 in each activity). Responses and there score were given in subsequent options:
  - ✓ Strongly agree- 5 score
  - ✓ Agree – 4 score
  - ✓ Neutral – 3 score
  - ✓ Disagree – 2 score
  - ✓ Strongly Disagree – 1 score

### *Procedure for data collection*

After the validation from experts, the required changes were done accordingly and then it was circulated to the Special educators of Delhi-NCR. The questionnaire was circulated in Google forms through online mode .The responses from the special educators from outside Delhi NCR area are not included in the study . Same as, only the responses of special educators who are having registration in rehabilitation council of India are included in the research.

## DATA ANALYSIS AND RESULTS:

The study analysis the “Perception of special educators on using collaborative art work activities for development of social communication skills among children with non-verbal learning disability”. The sample of 80 special educators were taken by convenient purposive sampling. Only the special educators of Delhi-NCR who are having certification from Rehabilitation council of India were chosen for the study. And then for analysing the hypothesis of the study, the sample was distributed in various demographic variables such as gender, and nature of organisation in the sample works.

In the sample of 80 special educators, there are 26% of male special educators and 74% of female special educators. The distribution is shown in figure 1

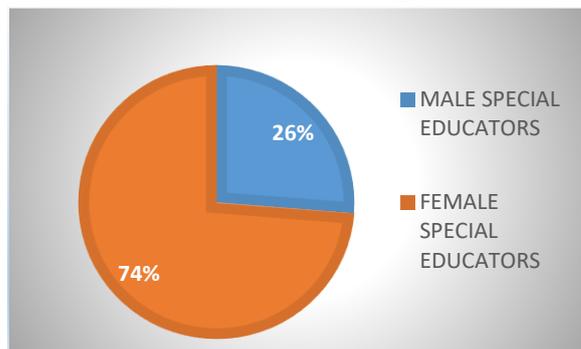


Figure 1: GENDER DISTRIBUTION

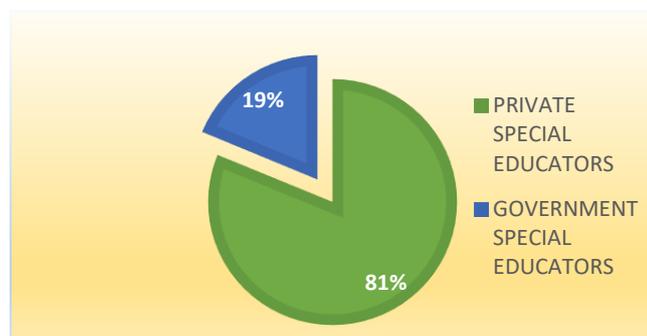


Figure 2: NATURE OF ORGANISATION DISTRIBUTION

In the sample of 80 special educators, there are 19% of special educators work in government sector and 81% of special educators work in private sector. The distribution is shown in the figure 2

The results based on various dimensions of major variables were analyzed being tested through suitable statistical measures.

The first objective of the study was “To study perception of special educators on using collaborative artwork activities for development of social communication skills among children with nonverbal learning disability” for this objective percentage analysis has been done.

The study was conducted using a survey form, which consist of 4 sections and each section has an activity and every activity consist of 8 close ended statements. So, total 32 statements were being there. Scoring for the study was setup as, 5 score for strongly agree, 4 score for agree, 3 score fir neutral, 2 score for disagree and 1 score for strongly disagree. The maximum score was 5. So, the total score calculated is 160 (32 X 5) for the study.

The mean score of total of 80 special educators in 32 close ended statements scores have been calculated and it has been came out as 136.2.

**Table 1: Percentage of perception of special educators on using collaborative artwork activities for development of social skills among children with nonverbal learning disability.**

<b>Total score of the survey form</b>	<b>160</b>
<b>Mean score of total scores obtained in data collection</b>	136.2
<b>Percentage of scores of special educators</b>	85.12%

The percentage of mean score of special educator’s perception on using collaborative artwork activities for development of social communication skills among children with nonverbal learning disability came out as **85.12%**. This shows that collaborative art work activities chosen for the study can be used for development of social communication skills among children with nonverbal learning disability.

‘t’ test has been used as a statistical technique for analysing first hypothesis ( $H^1$ ) and its sub hypothesis.

**Analysis on the basis of nature of organisation:**

**Table 2: Comparison between perception of Special Educators of Private Organisation and Government Organisation.**

S.NO.	GROUPS OF SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Special Educators of Private Organisation	137.2	65	11.40	78	1.99	Significant at 0.05 Level
2	Special Educators of Government Organisation	131.86	15	13.96			

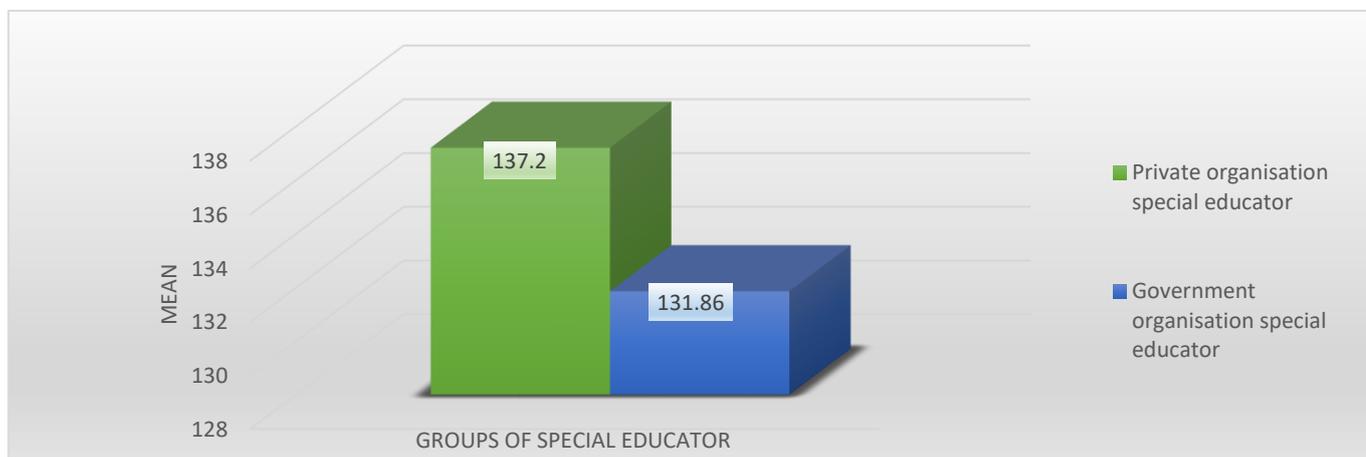


Figure 3: Comparison between perception of Special Educators of Private organisation and Government Organisation.

The special educators were divided into two categories on the basis of nature of organisation as private organisation and government organisation special educators (table 2 and figure 3). The number of private organisation special educators were 65 and number of government organisation special educators were 15. The mean calculated for them are 137.2 and 131.86 respectively. The standard deviation for private organisation special educators is 11.40 and for government organisation special educators is 13.96. The t value calculated is 1.99. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of Private organisation special educators and Government organisation special educators.

**Analysis on the Basis of Gender:**

**Table 3: Comparison between perception of Female and Male Special Educators**

S.NO.	GROUPS OF SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Female	135.44	59	11.94	78	1.99	Significant at 0.05 Level
2	Male	138.33	21	12.23			

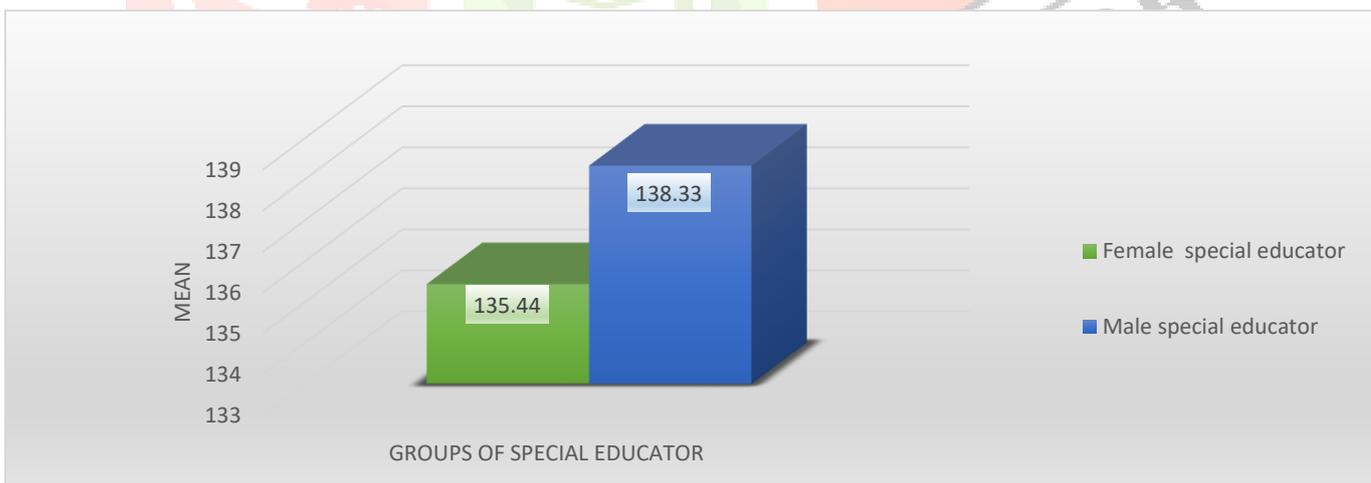
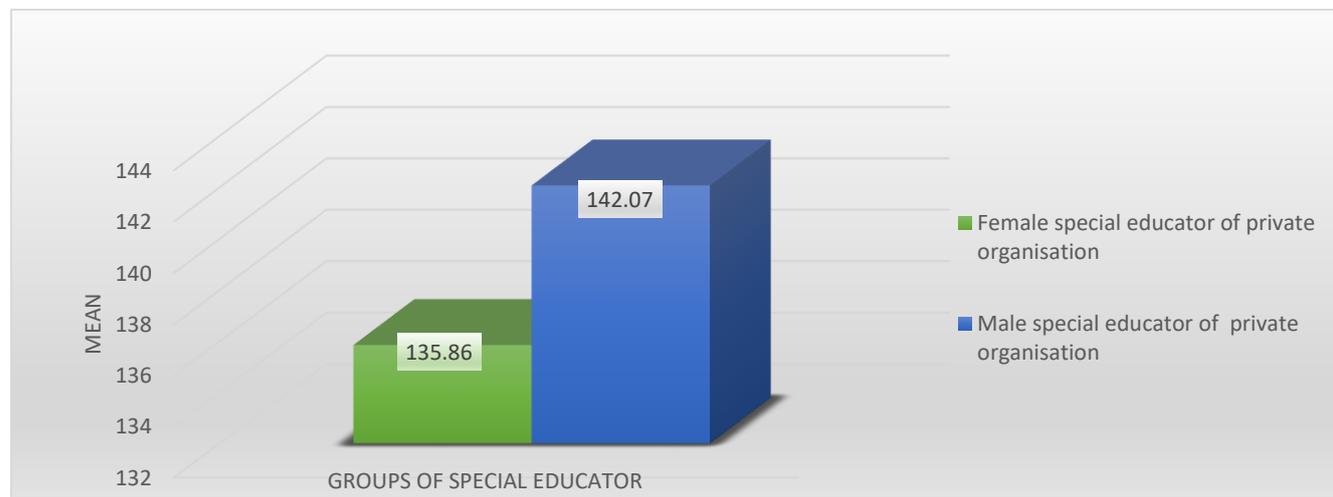


Figure 4: Comparison between perception of Female special educators and Male special educators

The special educators were divided into two categories on the basis of gender as male and female (table 3 and figure 4). The number of females were 59 and number of males were 21. The mean calculated for female and male are 135.44 and 138.33 respectively. The standard deviation for female is 11.94 and for male is 12.23. The t value calculated is 1.99. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of female special educators and male special educators.

**Table 4: Comparison between perception of Female Special Educators and Male Special Educators of Private Organisation**

S.NO.	GROUPS OF SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Female Special Educators of Private Organisation	135.86	51	11.46	63	1.99	Significant at 0.05 Level
2	Male Special Educators of Private Organisation	142.07	14	10.14			

**Figure 5: Comparison between perception of Female Special Educators and Male Special Educators of Private Organisation**

The special educators were divided into two categories on the basis of gender as Female special educators of private organisation and Male special educators of private organisation (table 4 and figure 5). The number of females were 51 and number of males were 14. The mean calculated for female and male are 135.86 and 142.07 respectively. The standard deviation for female is 11.46 and for male is 10.14. The t value calculated is 1.99. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of Female special educators of private organisation and Male special educators of private organisation.

**Table 5: Comparison between perception of Female special educators and Male special educators of government organisation**

S.NO.	GROUPS OF SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Female Special Educators of Government Organisation	132.75	8	15.33	13	2.16	Significant at 0.05 Level
2	Male Special Educators of Government Organisation	130.85	7	13.35			

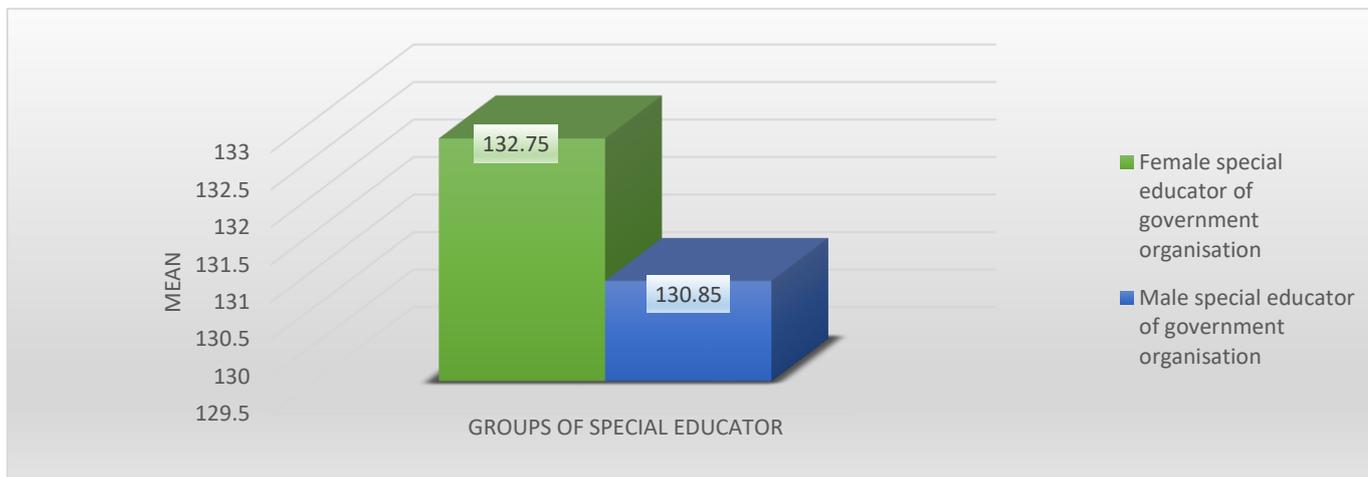


Figure 6: Comparison between perception of Female Special Educators and Male Special Educators of Government Organisation.

The special educators were divided into two categories on the basis of gender as Female special educators of government organisation and Male special educators of government organisation. (Table 5 and figure 6). The number of females were 8 and number of males were 7. The mean calculated for female and male are 132.75 and 130.85 respectively. The standard deviation for female is 15.33 and for male is 13.35. The t value calculated is 2.16. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of Female special educators of government organisation and Male special educators of government organisation.

Table 6: Comparison between perception of Male Special Educators of Private Organisation and Male Special Educators of Government Organisation.

S.NO.	GROUPS SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Male Special Educators of Private Organisation	142.07	14	10.14	19	2.09	Significant at 0.05 Level
2	Male Special Educators of Government Organisation	130.85	7	13.35			

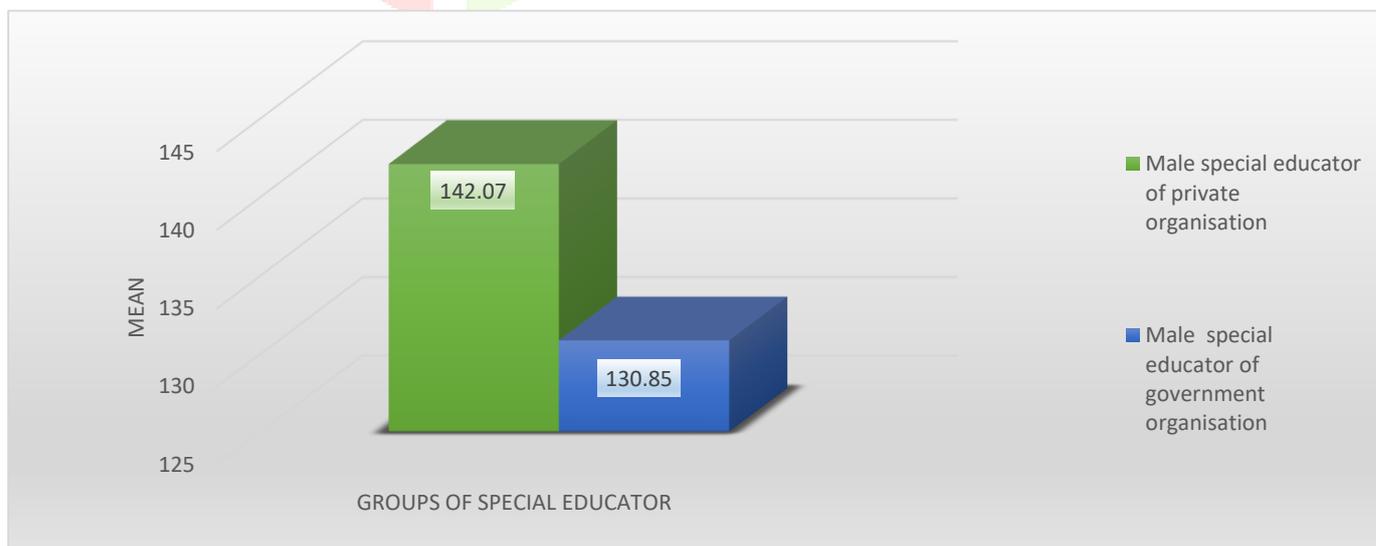


Figure 7: Comparison between perception of Male Special Educators of Private Organisation and Male Special Educators of Government Organisation

The special educators were divided into two categories on the basis of gender as Male special educators of private organisation and Male special educators of government organisation (table 6 and figure 7). The number of male special educators of private organisation were 14 and number of male special educators of government organisation were 7. The mean calculated for them are 142.07 and 130.85 respectively. The standard deviation for male special educators of private organisation is 10.14 and for male special educators of government organisation is 13.35. The t value calculated is 2.09. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of male special educators of private organisation and male special educators of government organisation.

**Table 7: Comparison between perception of Female Special Educators of Private Organisation and Female Special Educators of Government Organisation.**

S.NO.	GROUPS OF SPECIAL EDUCATORS	MEAN	N	S.D	df	t VALUE	LEVEL OF SIGNIFICANCE
1	Female Special Educators of Private Organisation	135.86	51	11.46	57	2.00	Significant at 0.05 Level
2	Female Special Educators of Government Organisation	132.75	8	15.33			



Figure 8: Comparison between perception of Female special educators of private organisation and Female special educators of government organisation.

The special educators were divided into two categories on the basis of gender as Female special educators of private organisation and Female special educators of government organisation (table 7 and figure 8). The number of female special educator of private organisation were 51 and number of female special educators of government organisation were 8. The mean calculated for them are 135.86 and 132.75 respectively. The standard deviation is 11.46 and 15.33 respectively. The t value calculated is 2.00. The difference is significant at 0.05 level. Thus, the hypothesis framed is rejected and concluded that there is some variance between the perception of female special educators of private organisation and female special educators of government organisation.

## FINDINGS:

Learning disability comprises a wider range of disabilities one of them is children with nonverbal learning disability. This disability makes the child unable to interact and communicate successfully, and deploys their social communication skills. There is an urgent need to find out methods and strategies to develop their social communication skills. In accordance to this one different method has been selected by researcher to find out whether this method would help children with non-verbal learning disability in developing their social communication skills. Art has played a major role in enhancing social skills in among children with special needs. In this context the

method chosen in the study for developing social communication skills is using collaborative artwork activities. But before incorporating collaborative artwork activities there is a need to know about the perception of different special educators and get their acceptance for the activities for developing social communication skills among children with non-verbal learning disability.

The following **findings** were obtained from present study.

- The percentage of mean score of special educator's perception on using collaborative artwork activities for development of social communication skills among children with nonverbal learning disability came out as **85.12%**.
- The perception of female special educator is different from male special educator.
- The female special educators of private organisation shows different perception from the male special educator of private organisation.
- The government sector special educators both male and female shows different perceptions.
- Male special educators have different perception on the basis of their nature of organisation (private and government).
- Female special educators have different perception on the basis of their nature of organisation (private and government).
- On the basis of nature of organisation (private and government) the perception of special educator is different.

## **CONCLUSIONS:**

From the very first finding of the study the percentage of mean score of special educators' perception is 85.12 %. This percentage shows a positive perception of special educators towards the study and shows their acceptance to the idea that collaborative art work activities chosen for the study can be used for development of social communication skills among children with nonverbal learning disability.

From the findings it can also be concluded that gender plays an important role in changing perception of special educator. Arranging gender with nature of organisation have given an ample amount of results to the study that shows whatever the organisation is, the perception of male and female special educators will remain different at some point. This difference can lead to greater results in adopting the collaborative artwork activities in their organisations for children with nonverbal learning disability.

Private or government both nature of organisations works differently according to their norms and policies and so their special educators too. This difference in their working environment has created a gap between their perceptions for the study.

## **DELIMITATIONS:**

The study is only conducted in the region of Delhi- NCR therefore the finding of the study are applicable only for Delhi NCR region.

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