

A STUDY ON THE EFFECT OF MULTISENSORY APPROACH IN TEACHING COMMUNICATION SKILLS AMONG THE CHILDREN WITH MODERATE MENTAL RETARDATION

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ABSTRACT

Communication is the most important part of life through which one expresses their need in a different form but it becomes a challenge especially for children with mental retardation. The present study shows the effect of multisensory approach in teaching communication skill among children with moderate mental retardation. Four different cases were selected through purposive sampling from integrated setup on the bases of economic, social and cultural background. Case study method was used for the present study. Madras Developmental programing system was used for pre-test and post-test. Through the careful observation, effects of intervention were recorded during and after the activities in all the cases. Data was analysed quantitative as well as quantitative way and conclusion were drawn with further recommendation.

Keywords: - Communication skill, Multisensory approach, Mental Retardation

INTRODUCTION

Learning to communicate is one of the most important accomplishments of early childhood. In a society which places a high value on communication, the learning of speech and language skills by children is essential. These skills, if well developed, prepare the child for full adult participation in our communication oriented society.

Students with mental retardation may have difficulty expressing themselves well enough to be understood. This limitation is especially true of those with moderate or severe retardation. Almost all students with moderate mental retardation are limited in their ability to express themselves or understand others. Many do not talk or use gestures to communicate; and they may not respond to communication from others. Those with mild

retardation sometimes demonstrate delayed comprehension as well as receptive and expressive language problems.

OPERATIONAL DEFINITION OF KEY WORDS

MULTISENSORY APPROACH

Multisensory approaches refer to use of more than two senses (hearing and vision which are generally used for learning) for teaching a learner. As all sensory channels including (vision hearing, smell, taste and touch) receive information and as each sensory channel has a distinct role in receiving the stimuli in the environment, it is very essential that they are used effectively. After vision and hearing it's the tactile/kinesthetic sense that is used predominantly in the learning process.

Effectiveness

Effectiveness is a measure of the ability of a program, project or task to know the improvement in communication skills among children with moderate mental retardation

Communication skills

Communication skills are those which help a person in exchanging his ideas, information and needs. Based on the channels used for communicating, the process of communication can be broadly classified as verbal communication and non- verbal communication. Verbal communication includes written and oral communication whereas the non-verbal communication includes body language, facial expressions and visuals diagrams or picture used for communication.

Children with moderate mental retardation

Children whose Intelligent Quotient is between 35 to 49 and who learn primarily in the areas of self-help skills, very limited achievement in areas considered academic are called moderate mentally retarded.

NEED OF THE STUDY

- Children with moderate mental retardation have limited communicative skills.
- If they are not trained properly they will be left out in the family/society.

- General/conventional method of teaching communication skill is not adequate/suitable children with moderate mental retardation.
- Convenient method of teaching communicative skills may not be suitable for children with moderate mental retardation. Therefore some innovative/creative techniques are needed to train such individuals.
- Multisensory approach is one of the innovative approaches to train moderately affected persons with mental retardation to develop communication skill.

It is well known fact that individual differences among children do exist and some children acquire skills at a faster pace and some of them at a slower pace. However, due to the intellectual disability children with mental retardation have difficulty in understanding and learning skills in par with their peers as a consequence are unable to cope with the educational and social demands. Each individual with mental retardation irrespective of the severity of mental retardation has the potential to learn.

They can develop their language and communication skills which is very important to convey our thought and feeling to others. But due to the problem in cognitive abilities, motor abilities and speech production mechanism children with moderate mental retarded have difficulty in understanding and speaking and in communicating their needs. So they need help in comprehension of events that happens around them and allow them to use their residual intellectual capabilities to communicate properly. Therefore one has to pay attention on developing functional communication.

STATEMENT OF THE PROBLEM

“A study on the effect of multisensory approach in teaching communication skills among the children with moderate mental retardation”

OBJECTIVE OF THE STUDY

1. To identify children with moderate mental retardation having difficulties in communication skills using the standardized MDPS tool.
2. To analyze the difficulties in communication skills among children with moderate mental retardation.
3. To implement the multisensory approach in teaching communication skills to children with moderate mental retardation.

HYPOTHESIS FORMULATED FOR THE STUDY

1. There is no significant difference between Pre-test and Post-test in the average activity scores.
2. There is no significant difference between total Pre-test and total Post-test in the average activity scores.

DELIMITATION

1. Sample selected is very small.
2. The results of the study could not be generalized with inference from small sample size.
3. Dimension of adjustment problem.
4. Language.
5. Short duration of time.

POPULATION

The present study has been conducted in an integrated school named T.A.T Kalanilayam at Ramakrishna Mission Vidyalaya, Coimbatore, Tamil Nadu.

SAMPLE

Four different cases were selected based on the variations observed among children with moderate mental retardation through purposive sampling. These children belong to various social, economic and cultural background and the age class of these children are between nine to twelve years.

METHODOLOGY

Case study method was selected by the investigator in order to achieve the goal. In addition to this, 4 different types of activities were given as an attempt to do same intervention and their responses were recorded. Researcher also attempted to quantify observation in a systematic way and tried a simple statistical analysis. For quantification of data as scores of pre-test and post-test of communication skills, Researcher used Madras

Developmental Programming System (MDPS) developed by Dr. P Jayachandran and Prof. V. Vimla. Through the careful observation, effects of intervention were recorded during and after the activities in all the cases.

SELECTION OF TOOL

For the present study investigator used standardized tool, Madras Developmental Programming System (MDPS) developed by Dr. Jayachandran and Prof. V. Vimla to know the entry level of the sample with regards to their communication skills.

The following tools were used by the investigator to collect necessary data for the study.

- Check-list for pre-test.
- Multisensory material for treatment.
- Check-list for post-test.

SELECTION OF TREATMENT

The investigator selected 4 different activities for this study so as to give treatment for the sample selected. The details of the activities are listed below:-

S.N	Activity	Description of the Activities	Name of the Students
1	Rhymes	1. Listening to rhymes 2. Repeat rhymes (with actions)	1. R. Jaganadhan 2. R. Arun Kumar 3. Manikandan 4. Shivaneshan. S
2	Story telling	1. Listening to storytelling. 2. Story telling through actions.	1.R.Jaganadhan 2.R.Arun Kumar 3. Manikandan 4. Shivaneshan.S
3	Comprehension (with question & Answer)	Q/A session of 1. Telling names and address of his own. 2. Telling names of object. 3. Telling names of concepts.	1.R.Jaganadhan 2.R.Arun Kumar 3. Manikandan 4. Shivaneshan.S
4	Play activities	Pouring water.	1.R.Jaganadhan 2.R.Arun Kumar 3. Manikandan 4. Shivaneshan.S

ANALYSIS AND INTERPRETATION OF DATA

Hypothesis: 1

There is no significant difference between Pre-test and Post-test in the average activity scores.

Table No. 1

Analysis between Pre-test and Post-test in the average activity scores.

Paired Samples Statistics

	Mean	N	Std. Deviation
Activity I – Pre-test	19,2500	4	1,2583
Activity I – Post-test	23,0000	4	2,1602

Paired Samples t – test

	Paired Difference		t	df	Sig.
	Mean	Std. Deviation			
Activity I – Pre - test Activity I – Post - test	3,7500	0.9574	7.833	3	**

Discussion:

The paired t - test was applied to find whether there is a significant difference between pre-test and post-test in the average activity scores.

The calculated t-test value is 7.833 which is higher than the table value of 5.841 at 1% level of significant.

Since the calculated value is greater than the table value it is inferred that there is a significant difference between pre-test and post-test in the average activity scores. Hence the hypothesis is rejected.

Hypothesis: 2

There is no significant difference between pre-test and post-test in the average activity scores.

Table No. 2

Analysis between pre-test and post-test in the average activity scores.

Paired Samples Statistics

	Mean	N	Std. Deviation
Activity II – Pre-test	18,5000	4	1,2910
Activity II– Post-test	20,0000	4	1,1547

Paired Samples t – test

	Paired Difference		t	df	Sig.
	Mean	Std. Deviation			
Activity II – Pre-test					
Activity II – Post – test	1,5000	.5774	5.196	3	*

Discussion:

The paired t-test was applied to find whether there is a significant difference between pre-test and post-test in the average activity score.

The calculated t-test value is 5.196 which is higher than the table value of 3.182 at 5% level of significant.

Since the calculated value is greater than the table value it is inferred that there is a significant difference between pre-test and post-test in the average activity scores. Hence the hypothesis is rejected.

Hypothesis: 3

There is no significant difference between Pre and Post-test in the average activity scores.

Table No. 3**Analysis between Pre and Post-test in the average activity scores.****Paired Samples Statistics**

	Mean	N	Std. Deviation
Activity III- Pre – test	17,7500	4	2,8723
Activity III – Post - test	19,2500	4	2,5000

Paired Samples t – test

	Paired Difference		T	df	Sig.
	Mean	Std. Deviation			
Activity III – Pre - test Activity III – Post - test	1,5000	.5774	5.196	3	*

Discussion:

The paired t-test was applied to find whether there is a significant difference between pre-test and post-test in the average activity score.

The calculated t – test value is 5.196 which is higher than the table value of 3.182 at 5% level of significant.

Since the calculated value is greater than the table value it is inferred that there is a significant difference between pre-test and post-test in the average activity scores. Hence the hypothesis is rejected.

Hypothesis: 4

There is no significant difference between Pre and Post-test in the average activity scores.

Table No. 4

Analysis between Pre and Post-test in the average activity scores.

Paired Samples Statistics

	Mean	N	Std. Deviation
Activity IV– Pre – test	19,5000	4	1.7321
Activity IV– Post - test	20,2500	4	1.7078

Paired Samples t – test

	Paired Difference		t	df	Sig.
	Mean	Std. Deviation			
Activity IV – Pre - test Activity IV – Post - test	0.7500	.5000	3.000	3	Ns

Discussion:

The paired t-test was applied to find whether there is a significant difference between pre and post-test in the average activity score.

The calculated t-test value is 3.000 which is less than the table value of 3.182. So there is no significant difference.

Since the calculated value is less than the table value it is inferred that there is no significant difference between pre-test and post-test in the average activity scores. Hence the hypothesis is accepted.

Hypothesis: 5

There is no significant difference between total Pre-test and total Post-test in the average activity scores.

Table No. 5

Analysis between total Pre-test and total Post-test in the average activity scores.

Paired Samples Statistics

	Mean	N	Std. Deviation
Total-pre-test	75,0000	4	46.904
Total-post-test	82,5000	4	4.7958

Paired Samples test

	Paired Difference		t	df	Sig.
	Mean	Std. Deviation			
Total-Pre-test-Total-Post-test	7.5000	0.5774	25.981	3	**

Discussion:

The paired t-test was applied to find whether there is a significant difference between total pre-test and total post-test in the average activity scores.

The calculated t – test value is 25.981 which is higher than the table value of 3.182 at 1% level of significant.

Since the calculated value is higher than the table value it is inferred that there is a significant difference between total pre-test and total post-test in the average activity scores. Hence the hypothesis is rejected.

CONCLUSION

In story telling activities case 3 (Manikandan) performed well compared to other cases. In Rhymes, case 2 (Shivaneshan S.) and case 3 (Manikandan) scored well. While take comprehension, case 3 (R. Jaganadhan) scored good and in play activities case 4 (R. Arun Kumar) scored well.

From the above information it is the evident that case 3 (Manikandan) is good in 3 out of 4 activities given when compared to other cases. While taking comprehension Jaganadhan & Manikandan performed well. In play activities case 4 (R Arun Kumar) did well.

Thus the statistical treatment shows that out of the paired t-test value of the 4 cases i.e. case 1 (R.Jaganadhan), case 2 (Shivaneshan S.), case 3 (Manikandan), case 4 (R. Arun Kumar), the calculated ‘t’ value is higher than the table value for case 1, 2, 3 and for case 4, the calculated value is less than the table value.

RECOMMENDATION

- The study has been conducted only on 4 samples. Initiation can be taken to conduct the same for large sample.
- The study has been conducted only through four activities (Storytelling, Rhymes, Comprehension and Play activities). Initiatives can be taken up to conduct same with other activities.
- Effective and interesting TLM can be used to make the subject motivated to learn.

- Multisensory approach can be used inside the classroom as well as outside the classroom
- Through this technique communication skills can be improved of the children with learning disability, children with down-syndrome, children with severe mental retardation and children with autism.

SUGGESTIONS FOR FURTHER STUDY

- Further Research can extend the multisensory approach to improve communication skills, language skills, arithmetical skills, and other skills for the children with mental retardation.
- Further research can be taken up for the study of children with down-syndrome, Learning disabilities and Autism.
- This method of teaching can also be use on severe mentally retarded children.
- This strategy can be used for any type of disability area as well as general field.
- Multisensory approach can be used in any area of any subject.
- Further studies can also be conducted with the co-operation of parents in improving communication skill.

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