

1 Language Stimulation for Children with Mental Retardation-An 2 Activity Manual for Parents

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5

6 **Abstract**

7 The objectives of the Study: To develop training activities and guidelines suitable for north
8 Indian home settings in an activity manual and to field test the developed material on a group
9 of Hindi-English speaking parents of mental retardation. Method : 20 Parents and 20 Special
10 educators (Mental Retardation) were included in this study. Field Study tool (Questionnaire)
11 was developed on the base of coverage of content, use of language, style of presentation and
12 difficulties in home implementation. Questionnaire and activities described in the manual were
13 given to all the subjects for one week reading and they were asked to rate the questionnaire.

14

15 **Index terms**— language stimulation, activity manual, mental retardation, home, parents, children, special
16 educators, questionnaire.

17 **1 Introduction**

18 Mental Retardation (MR) is an idea, a condition, a syndrome, a symptom and a source of pain and bewilderment to
19 many families. Its history dates back to the beginning of man's time on earth. The idea of mental retardation can
20 be found as far back in history as the therapeutic papyri of Thebes (Luxor), Egypt, around 1500 B.C. Although
21 somewhat vague due to difficulties in translation, these documents clearly refer to disabilities of the mind and
22 body due to brain damage (Sheerenberger, 1983).

23 Mental Retardation is a disability characterized by significant limitations both in intellectual functioning and
24 adaptive behavior as expressed in conceptual, social and practical adaptive skills. This disability originates before
25 age 18" ??AAMR, 2002).

26 "Five assumptions essential to the application of the definition: 1. Limitations in present functioning must
27 be considered within the context of community environments typical of the individual's age, peers and culture.
28 2. Valid assessment considers culture and linguistic diversity as well as differences in communication, sensory,
29 motor and behavioral factors. 3. Within an individual, limitations often coexist with strengths. 4. An important
30 purpose of describing limitations is to develop a profile of needed supports. 5. With appropriate personalized
31 supports over a sustained period, the life functioning of the persons with mental retardation generally will
32 improve" ??AAMR, 2002).

33 The definitions prevalent in India are given below, which are a part of legislations adopted by the Government
34 of India, these are:

35 A range of problems of children with mental retardation has been reported, among these, speechlanguage prob-
36 lems are important because speech and language are an important component of communication. Communication
37 is about the transmission of information. Effective human communication relies heavily on language, a system
38 of verbal or gestural symbols governed by rules in a sophisticated code, Method : 20 Parents and 20 Special
39 educators (Mental Retardation) were included in this study. Field Study tool (Questionnaire) was developed on
40 the base of coverage of content, use of language, style of presentation and difficulties in home implementation.
41 Questionnaire and activities described in the manual were given to all the subjects for one week reading and they
42 were asked to rate the questionnaire.

43 Result : The data were statistically analyzed using Independent sample t-test to find out any significant
44 difference among the groups. Result showed there was no significant difference among the groups. Both groups
45 agreed that the most suitable material has been included regarding the coverage of content used in activity

5 D) FIELD STUDY TOOL

46 manual. Conclusion : There was no suggestion and no difficulty faced by both the groups while implementing
47 the manual at home, as both Parents and Special Educators rated the questions similarly. The activity manual
48 will be helpful to the parents for planning and carrying out the activities in day to day routine for their child
49 and it's a compliment for the special educators.

50 2 Literature Review

51 Subba Rao, (1992) while describing speech, language and communication problems of Mental Retardation persons,
52 has stated that, "There is no typical speech and language pattern of mentally retarded persons. Mentally Retarded
53 children exhibit a wide variety of speech and language problem and the problems are highly individualistic in
54 nature. That means no two mentally retarded children show the same problems. The range is so wide that one
55 child may not speak at all and understands very little of other's speech where as another child has fairly good
56 comprehension for day to day living and has enough speech to express but the speech is unintelligible. Generally,
57 it is accepted that the speech and language development in mentally retarded children is delayed as compared to
58 normally developing children. That means to say that mentally retarded children develop speech and language
59 skills in the same sequence as do normal children and the factors underlying development are same. However,
60 they develop skills more slowly and they have a lower ceiling of development than normal individuals. The
61 available evidence suggests that mentally retarded children are likely to show specific difficulties or delays in the
62 structural aspects of language particularly in respect of sentence length, syntax and sentence complexity"(PP.
63 122-123).

64 The frequency of language disorder is about 100% below the I.Q-20, around 90% between the IQ 21-50,
65 and about 45% in the mild retarded group (Carrowwool folk and Lynch, 1982). In a retrospective analysis of
66 300 mentally retarded children done at NIMH (National Institute for the Mentally Handicapped) SubbaRao
67 and Srinivas, (1989) found that, 81.24% had speech and language deficits. It was noticed that 30% of them
68 had no speech and about 60.67% spoke a few words only. All the children had delayed speech and language
69 development, articulation defects were 52%, voice defects were observed in about 39.33% and 13% showed fluency
70 defects. Bharat Raj, (1987) reported that the percentage of speech and hearing defects were 37% in mild, 21%
71 in moderate, 16% in severe mental retardation groups. The most common disorder was delayed speech, which
72 increased with severity of mental retardation. Speech and language defects were more prevalent amongst males
73 than in females. Shah et al (1970) reported that 82% of the 133 cases of mentally retarded from a chronicle
74 population were found to have speech defects and a male-female ratio of 2:1 was observed. Gupta, (1970) analyzed
75 300 cases of intellectually retarded observed that speech defect was one of the main reasons for psychological
76 consultations. Prabhu, (1968) covering a sample of 320 mentally retarded children showed that 45% of them had
77 speech defects. It was also observed that speech defects were more common amongst a severely subnormal group
78 than the subnormal group.

79 An invaluable resource in evaluating and treating children with mental retardation is the Childs family. Trying
80 to understand and include families in the decision making process can ultimately be rewarding and beneficial for
81 all involved.

82 In Indian context only one guide for parents has been developed at National Institute for the Mentally
83 Handicapped (NIMH), Secundrabad, namely "Training in Communication Skills for Persons with Mental
84 Retardation (UTILITY GUIDE FOR PARENTS)," by Subba Rao & Narayan, ??2003). The utility guide is
85 divided into two sections, one dealing with details on how children develop their speech and language skills. The
86 other section involves 8 chapters, dealing with activities related to preparatory skills, listening skills, expression
87 skills, etc. Each activity has information on material and context. This has general objectives and limited
88 activities and their examples in each category.

89 It is felt that the number of such parent utility manual should increase and be available to all needy parents.
90 It is also felt that there is a need to expand objectives and activities to suit different socio-culturallanguage
91 speaking environments. The present manual will include a larger set of activities in limited area / objectives.
92 The activities will be focusing on a general north Indian cultural set up.

93 3 III.

94 4 Methods

95 The Present study aims:

96 5 d) Field Study tool

97 Questionnaire was developed on the base of coverage of content, use of language, style of presentation and
98 difficulties in home implementation.

99 Total number of questions in the questionnaire-15 Total number of multiple choices of questions-10

100 Total number of open ended or descriptive questions-5 Questionnaire and activities described in the manual
101 were given to all the subjects for one week reading and they were asked to rate the questionnaire based on that.

102 Questionnaires were rated on a 4-point scale i.e. 1-4 for the purpose of analysis the score was assigned, i.e.
103 1 -No, 2 -Very limited/ little, 3 -Mostly suitable/ Easy/ Useful and 4 -Very relevant/ Very easy for both the

104 groups only for multiple choice questions. The open ended or descriptive questions were taken as a suggestion to
105 improve or reorganize the activities of the manual.

106 The data were statistically analyzed using Independent sample t-test to find out any significant difference
107 among the groups.

108 IV.

109 6 Results

110 For this study 20 parents and 20 special educators were selected and most of the parents and special educators
111 were from various places of Ranchi (Jharkhand) and very few from the Mangalore (Karnataka), India. All Parents
112 were Hindi speakers and had a working knowledge of English. The activity manual and Questionnaire which
113 contains a set of 15 questions, in which question no 1 is excluded from the analysis because it generally tells
114 about the previous experience/ familiarization about the manuals in general. Question numbers 2 to 9 & 15 are
115 multiple choice questions which were rated on a 4 point rating scale. Question number 10 to 14 are open ended/
116 descriptive questions that focus on coverage of content, use of language, style of presentation and difficulties in
117 home implementation. Questionnaires were given to the parents and special educators for one week reading at
118 the end of which Questions were answered. In order to analyze the data, the rating points were scored as follows:
119 1 -No, 2 -Very limited/ little, 3 -Mostly suitable/ Easy/ Useful and 4 -Very relevant/ Very easy. The results are
120 presented in this section.

121 Language Stimulation for Children with Mental Retardation-An Activity Manual for Parents (Note: NS-Not
122 Significant) Independent sample t-test was done to find any significant difference between the two groups and
123 results showed that there is no significance difference among the two groups. Table 3 shows the Mean, Standard
124 deviation and t-value for the two groups. The results imply that both parents and Special Educators have rated
125 the Questions on Evaluation of the manual in the same pattern.

126 Mostly suitable

127 -

128 Table ?? : Questions regarding the Use of LanguageQ. R Q Parents Special educators No(1) **Little easy (2)**
129 **Easy (3) Very easy (4) No (1) Little easy (2) Easy (3) Very easy (4) 5.**

130 -2 17 1 -14 6

131 6.

132 -13 7 -3 7 10

133 9.

134 -2 15 3 -3 12 5

135 Table 4, shows the comparison between two groups for coverage of the content of the activity manual among
136 both groups. Relevant questions 2 to 4 are included in this table. The results clearly indicate that in both
137 the groups the agreement is in the most suitable category. While 80% of parents and 75% special educators
138 ratings are obtained Q.No.2, for Q.No.3. 80% of parents and 70% of special educators agree that the manual has
139 very good suitable content. For Q.No.4, 55% of parents and 60% of special educators say mostly stable, which
140 indicates the coverage of content in the present activity manual, is mostly suitable for both the groups.

141 Table ?? shows the comparison between parent and special educator groups in rating the level of language
142 used in activity manual, elicited by Q.No.5 to 7. The percentage scores for language being 'Easy' are maximum
143 for both parents and special educators. It is also significant that 15-20 of the subjects in the study noted that
144 the language is very easy. It can be concluded that language level was found to be easy or very easy.

145 Table 6 shows the comparison between parent and special educator groups regarding the style of presentation
146 in activity manual as judged by the subjects; these aspects were included in Q.No.8 & 9.

147 The results indicate that both groups were in agreement that the style of presentation is useful or very relevant.

148 Question number 10 to14 were open ended questions and all suggestions to improve the manual are listed, if
149 they were given. Suggestions were not given by all the parents and special educators. Few suggestions given by
150 both the groups are divided into two parts. All suggestions regarding the content and presentation of the manual
151 are listed in table 7. All suggestions for home implementation of activities are listed in table 8.

152 7 SE

153 To all parents To some parents 14 6

154 About 5 parents indicate that the manual should be available in regional language-Hindi also. The Results
155 clearly indicate that the content and presentation of manual is adequately done.

156 Table 8 shows the number of suggestions given by parents and special educators for parental implementation.
157 Parents and Special educators, indicate that activities can be carried out at home without much difficulty. More
158 than 50% of subjects in each group, i.e.11 parents and 14 special educators suggest that the manual can be given
159 to all Parents.

160 The overall findings of this study reveal that the content, language, style of presentation and the activities
161 which are based on general North Indian cultural setup are suitable and useful for the needy parents.

162 V.

163 **8 Discussion and Conclusion**

164 The present manual is an expansion and adaptation of an earlier communication developmental manual by Subba
165 Rao & Narayan, ??2003). The present manual has 10 numbers of objectives and 175 numbers of activities. The
166 activities in the present manual have been prepared keeping in mind a North Indian cultural, middle income
167 group contexts. Parents and Special Educators find the manual useful and easy to use. This generally points to
168 the fact that many such manual covering wider objectives are needed. Some suggestions, such as the need for
169 Hindi translation and adaptation of the manual to rural areas are very good; however they are out of the focus
170 of the present manual. The positive high ratings of the manual by Parents and Special educators indicate how
171 well efforts in the direction are appreciated. All future efforts may take the suggestions from parents and Special
172 Educators seriously. The present manual is useful for language interaction purposes.

173 **9 a) Limitations of the Study**

174 The number of subjects taken and areas (sections) covered in this study was less & very limited. The planned
175 activities were not based on the child age range and language used in this study was only English.

176 **10 b) Further Recommendations**

177 More number of subjects and areas (sections) can be included.

178 The activities can be planned at the base of child age range and the manual can be translated into regional
179 languages.

180 **11 VI.**

VII. 1 2 3



Figure 1: M © 2013

Figure 2: Table 1 :

2

| S.No | Name | Age/Sex | Education | Experience | Knowledge of English |
|------|----------|---------|-----------|------------|----------------------|
| 1. | Ms. S | 23Yrs/F | DSE MR | 3Yrs | Yes |
| 2. | Ms. R | 26Yrs/F | DSE MR | 3Yrs | Yes |
| 3. | Ms. S | 27Yrs/F | DSE MR | 3Yrs | Yes |
| 4. | Ms. P | 22Yrs/F | DSE MR | 3Yrs | Yes |
| 5. | Ms. M.P | 27Yrs/F | DSE MR | 3Yrs | Yes |
| 6. | Ms. M | 22Yrs/F | DSE MR | 3Yrs | Yes |
| 7. | Ms. S. | 25Yrs/F | DSE MR | 3Yrs | Yes |
| 8. | Mr. M | 35Yrs/M | DSE MR | 4Yrs | Yes |
| 9. | Mr. P | 26Yrs/F | DSE MR | 5Yrs | Yes |
| 10. | Mr. S.M | 22Yrs/M | DSE MR | 1Yrs | Yes |
| 11. | Mr. J.K | 22Yrs/M | DSE MR | 1Yrs | Yes |
| 12. | Ms. M.S | 22Yrs/F | DSE MR | 1Yrs | Yes |
| 13. | Ms. P.S. | 22Yrs/F | DSE MR | 1Yrs | Yes |
| 14. | Mr. S | 18Yrs/M | DSE MR | 1Yrs | Yes |
| 15. | Ms. K.P | 19Yrs/F | DSE MR | 1Yrs | Yes |
| 16. | Mr. B | 22Yrs/M | DSE MR | 1Yrs | Yes |
| 17. | Mr. N | 22Yrs/M | DSE MR | 1Yrs | Yes |
| 18. | Ms. H. K | 26Yrs/F | DSE MR | 2Yrs | Yes |
| 19. | Mr. M.K. | 25Yrs/M | DSE MR | 2Yrs | Yes |
| 20. | Mr. M.P | 26Yrs/M | DSE MR | 2Yrs | Yes |

As can be observed from table 2: All Special Educators had Diploma in Special Education-Mental retardation (DSE MR), with a minimum experience of 1 Year. All reported a working knowledge of English.

Figure 3: Table 2 :

3

| Questions | Groups | Mean | Standard deviation | t-value |
|-----------|--------|------|--------------------|----------|
| Q.2. | P | 2.8 | .69 | -1.840NS |
| | SE | 3.15 | .48 | |
| Q.3. | P | 3.1 | .44 | -2.746NS |
| | SE | 3.6 | .68 | |
| Q.4. | P | 3.15 | .67 | -1.334NS |
| | SE | 3.4 | .50 | |
| Q.5. | P | 2.9 | .39 | -2.552NS |
| | SE | 3.3 | .47 | |
| Q.6. | P | 2.85 | .74 | -2.284NS |
| | SE | 3.3 | .47 | |
| Q.7. | P | 3.05 | .22 | .000NS |
| | SE | 3.05 | .60 | |
| Q.8. | P | 3.35 | .48 | .000NS |
| | SE | 3.35 | .74 | |
| Q.9. | P | 3.05 | .51 | -.273NS |
| | SE | 3.10 | .64 | |
| Q.15. | P | 3.35 | .81 | -1.667NS |
| | SE | 3.70 | .47 | |

Figure 4: Table 3 :

4

| Q. | | Parents | | | Special educators | |
|----|-----|---------|--------------|---------------------|-------------------|--------------|
| R | | No | Very limited | Mostly suitable (3) | Very relevant (4) | No |
| Q | (1) | (2) | | | (1) | Very limited |
| | | | | | | |

Figure 5: Table 4 :

6

| Q. R | Parents | Special educators |
|------|---------|-------------------|
| No | | |
| Q | | |

Figure 6: Table 6 :

7

Q.No. Group Suggestions

Figure 7: Table 7 :

Q.No. Group Suggestions

Figure 8: Table 8 :

¹()G

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181 .1 Acknowledgment

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