GENERAL DISCUSSION

The obtained results are discussed at two levels. At the first level, the findings of each subject have been summarized. At the second level, a global analysis of the results have been presented.

1. Bihnu: He is a 7 years old boy having an M.A (Mental Age) of 4.5 years. He was trained on coin matching skill in experiment-1.1. He could acquire and maintain the coin matching skill quite smoothly with an intervention of 12 sessions. In the beginning of the training program he had difficulties in acquisition of 5 paise and 10 paise. He used to give these coins interchangeably for each other. He had to be restrained manually from making incorrect responses. For remaining coins not much problem was encountered. His performance on 25 paise seems to have improved due to generalization. This fast acquisition of matching relations by him could obviously be attributed to his high level of cognitive and behavioral functioning. He exhibited satisfactory maintenance and generalization of the acquired skill beyond training conditions. On some sessions of follow-up for 50 paise and 100 paise, he had a bit low performance due to the difficulty of size discrimination but he could overcome the same eventually. As he was trained for recognition and naming skill after this experiment the high level of post-training performance might have been facilitated by that training.

He was trained for 35 sessions on coin recognition skill in experiment-1.2. He used to attain perfect performance on trained exemplars and failed to maintain the attained performance except on 5 paise. For 100 paise, he demonstrated perfect performance without any intervention. For his difficulties in acquisition and maintenance of recognition skill it was thought that he either does not possess the required level of cognitive functioning for recognition skill or there were deficiencies in the training procedures. In the light of this, the training program was revised. The revised strategies were applied on him from 31st session onwards. He made substantial progress with the revised strategy. At this point the intervention had to be discontinued for unavoidable circumstances.
In experiment-3.3 he could acquire the complete skill of coin naming with a short intervention but failed to sustain the same substantially after completion of the training program. The pattern of his performance on pre-tests and post-tests of coin naming skill is quite unusual. It seems that the acquired ability is more a function of non-specific factors than of training program. His performance on almost all coins fluctuated widely and suddenly reached the criterion level. This might be due to two reasons. First, before entering to this program he knew the coin naming skill which became evident during the process of teaching. Second, he exhibited generalization from earlier learned recognition skill to naming skill. Further, he has been exposed to coin skills in this investigation only. Since his admission to the special school, no coin skill was targeted for him in the classroom setting. Cuvo and Riva (1980) suggested that in mentally retarded the generalization from naming to recognition or recognition to naming do occur. This subject also appears to have shown generalization from coin recognition skill to coin naming skill. Before teaching him coin naming skill, the baseline for coin recognition skill was also obtained which indicated recognition ability of 5 paise and 100 paise. But after acquisition of naming ability, he demonstrated substantial ability to recognize all coin types. This finding obviously supports the notion of cross modal generalization.

The assessment of generalization of coin naming skill had revealed that he did not sustain the acquired level of functioning upto the optimum level for each coin type. There could be two main reasons for this. First, the training program had been terminated on very first day when he demonstrated the criterion level of performance on one pre-test. No overlearning was done. The research literature is full of evidence that overlearned skill is better retained. Second, there was no opportunity to practice the task beyond the experimental setting. He is a hosteler in the school. He rarely encountered coins after termination of the training program in experimental setting. Homer et al. (1987) have demonstrated that low opportunity behaviors are poorly maintained.

2. Tandla: He is a 10.5 years old boy having an M.A of 4.5 years. He was trained on coin matching in experiment-1.1. He could acquire and maintain the coin matching skill. He
had demonstrated the perfect performance on matching skill after seven days of the intervention. On subsequent assessment it was noticed that he had difficulties in matching 25 paise, 50 paise and 100 paise. During the course of the program it was revealed that this difficulty was due to glaze of these coins. These three exemplars are of round shape with a little difference in size. Further, each coin type is of two types—glazed and non-glazed. He used to match glazed versus glazed, and non-glazed vs non-glazed exemplars quite smoothly. Once this aspect was evident, then several modifications in the procedure were tried. The effective procedure was observed to be to make him match the glazed versus non-glazed, exemplars individually. With this intervention he eventually acquired the skill. His difficulty of matching glazed versus non-glazed coins was accentuated by his inability to match the coins on the basis of the numbers inscribed over it despite his ability to match numbers up to 8. Besides, not much problems were encountered in teaching matching skill to him. The subsequent assessment of maintenance and generalization revealed perfect performance in every session for each coin type. On 20 paise and 25 paise his performance improved due to the generalization effect of trained coin types.

In experiment - 2.2 he was trained on coin recognition skill for 5 paise and 10 paise. In the baseline he had chance level performance on both coin types. He could attain the perfect performance on pre-tests and post-tests of these coins as a result of intervention. But he failed to maintain the same on subsequent sessions. Repeatedly, it was noticed that after introduction of second coin for training, he used to fail to recognize the previously trained coin. Due to this, the training had to be reverted to the previously trained coin type. A vicious cycle of performance was established. The possible reason for this trend is that on post-tests he used to be tested only on the target coin. Since, he was trained on a coin and tested in post test on the same coin, the perfect performance is quite natural. On next pre-test also this perfect performance was evident. Once, he was required to recognize earlier trained coin, he used to recognize the coin trained in immediately preceding session. This appeared to be a case of inappropriate generalization. The pattern of performance indicates that either the procedure is deficient in some ways or he need prolonged training to attain and maintain the required level of criterion performance.
In experiment- 3.3 he was trained on coin naming skill. In the baseline his performance was less than perfect for each coin type. As a result of intervention he could acquire and maintain the perfect performance in experimental setting for 5 paise, 10 paise, 25 paise and 50 paise. For 20 paise and 100 paise his performance reached the criterion level without any direct intervention. This clearly reflect an instance of non-specific factors (Llorente and Gaffan, 1989). Before recruiting him to this experiment he was trained on coin matching skill in experiment - 1.1. During the coin matching skill training he was never exposed to verbal labels of the coins. During coin recognition skill training in experiment - 2.2 he was exposed to the verbal labels of 5 paise and 10 paise only. Further, he was not explicitly required to produce the verbal labels. In classroom also no coin skill was targeted for him. The particular non-specific factor is difficult to identify. At home he might have got the opportunities to acquire these labels. The assessment of generalization across settings and "experiments" was quite satisfactory on both trained and non-trained exemplars with exception of 5 paise in last sessions. The reasons for this decrease in the performance of 5 paise during maintenance and generalization are not clear.

In experiment- 3.2 he was once again recruited for coin recognition skill. Baseline for coin recognition of experiment-3.3 was taken for this experiment. During the baseline his performance was at chance level for each coin type. He was trained on 5 paise, 20 paise and 50 paise. With intervention he could attain the perfect performance but failed to maintain the same over subsequent sessions. On 10 paise, 25 paise, and 100 paise better level of performance emerged in the absence of any direct intervention to these coins. This higher level performance on 10,25, and 100 paise might be due to the generalization of coin naming skill. The lack of substantial improvement on trained exemplars is difficult to explain.

3. Usha: She is a 12 years old girl having an M.A of 6.5 years. She was trained on coin naming skill in experiment-1.3, on coin recognition skill in experiment-1.2, on paper money matching skill in experiment-4.1 and on paper money naming skill in experiment- 4.2.

With a quite short intervention she could acquire and maintain the coin naming skill in both training and extra training setting. Not much difficulties were encountered during the
training program. Her mother tongue is "Telgu" for which she had some difficulties in pronouncing 25 paise ("charana" or "pachis" paise) and 50 paise ("aathana" or "pachas" paise). With repeated practice she could overcome this difficulty. An inappropriate generalization was also obtained for some coins particularly for 5; paise and 10 paise during the beginning of the program. In such instances she was intensively required to practice the coin labels one by one in separate sessions. In some sessions very strong striving to continue to practice the verbal labels was noticed. She had to be forced to give up the task. Thus, in the process she practiced the coin labels quite beyond the required level.

After training on coin naming skill in above experiment she was recruited to coin recognition skill training in experiment- 1.2. She appears to have known the recognition of 5 paise 10 paise and 100 paise before intervention. Her performance on 20 paise, 25 paise and 50 paise seems to have improved as a result of the intervention program. This substantial improvement in her recognition ability is considered to be due to her prior overlearning of naming skill and her relatively better level of cognitive and behavioral functioning. The training program for this skill was quite smooth. During the training program for error correction it was noticed that whenever she was asked to name the value of incorrectly recognized coin, she named the coin incorrectly. The reasons for her incorrect naming after overlearning of naming skill in experiment-1.3 are not apparent. For these naming errors, this form of error correction was abandoned. The maintenance and generalization data revealed that despite fluctuations in the performance of some coins, she maintained the skill satisfactorily.

In experiment - 4.1 she was trained on paper money matching skill. Her performance during the baseline was almost at chance level. For teaching, a cue of numbers printed on the note was given to her. With this cue she could acquire the skill. No intensive intervention was required for the skill. Her previous learning of number matching facilitated the acquisition of matching of notes.

In experiment- 4.2 she was trained on paper money naming skill. It is worth mentioning that this subject in the baseline for paper money naming skill said that she did not know the
value of notes. This was the first time when a subject explicitly expressed her inability. During entire investigation no other subject expressed this and continued to respond to the instructions correctly or incorrectly. During baseline Usha's naming level was taken at "zero level". After introduction of the training program she could smoothly acquire and maintain the skill even beyond the training program.

4. Nihar: He is a 12 years old boy with an M.A of 5.0 years. He was trained on coin recognition skill in experiment-1.2. Before this experiment he did not know recognition or naming of any coin type. During the coin recognition skill training program he was trained on 5 paise, 10 paise and 20 paise. He acquired the recognition of 5 paise and 10 paise. His performance on pre-tests and post tests of these two coins fluctuated after achieving the perfect level. In the pre-tests he frequently used to seek approval for correct response. During the simultaneous training of 5 paise and 10 paise, this aspect was quite evident. He will pick up a coin and show to the experimenter whether this was the correct coin. No substantial genuine improvement was judged in this subject and the training program was terminated. The pattern of performance however reveals that had he been trained for some more sessions probably he could have acquired and sustained the skill.

He was recruited for coin naming skill in experiment-3.3. The baseline assessment of the skill revealed that he knew 5 paise and 100 paise. He was trained on remaining four coins 10 paise, 20 paise, 25 paise and 50 paise. He could substantially improve only on 10 paise. On 20, 25 and 50 paise he never attained perfect performance due to the training except on 26th session of 25 paise. The entire intervention was done for 28 sessions. For 20 paise alone, the intervention was carried out for 10 sessions. This failure to acquire the skill can be for two reasons. Firstly, he did not have required level of cognitive and behavioral functioning for coin naming skill. Secondly, the teaching procedure was ineffective. Since he demonstrated the naming ability of 5 paise, 10 paise, and 100 paise, the first possibility does not hold.

5. Biranchi: He is a 10 years old boy having an M.A of 4.5 years. He was trained on coin recognition skill in experiment-1.2 for 11 sessions on 5 paise, 10 paise, and 20 paise. No substantial improvement was judged in the skill of the subject due to the training program. So the program was discontinued.
6. Sarpanch: He is a 10 years old boy with an M.A of 6.0 years. He was trained on coin naming skill in experiment-1.3. He already knew naming of 100 paise. His performance improved spontaneously for 25 paise. He made noticeable progress on 5 paise and 50 paise after intervention. He failed to retain the required level of naming ability on 10 paise and 20 paise. In fact a very strong error pattern of 10 paise and 20 paise became established in this subject. He used to name 10 paise as 20 paise and vice versa. This error pattern was probably initiated by premature inclusion of 20 paise with 10 paise for simultaneous training. Before establishment of performance on 10 paise, 20 paise was also included, and the training was given in random order on 10 paise and 20 paise in the same session. To correct this form of error very intensive training program was instituted. Despite quite large number of training trails on 10 paise and 20 paise, the error pattern could not be corrected. The program had to be terminated ultimately.

7. Krishna: He is a 12 years old boy having a social age of 4.5 years. He was trained on coin matching skill in experiment - 2.1. In the baseline he demonstrated ability to match 100 paise. His ability to match 25 paise seems to have improved as a result of generalization from previously trained coins. With intervention, his performance improved on 5 paise, 10 paise, 20 paise and 50 paise. On 19th session of the program he demonstrated low performance on some coins. This is because there was a gap of 15 days between 18th and 19th session. The pattern of his performance during the program reveals that he could have acquired and maintained the skill with continuous intervention. He had discontinued the schooling for winter vacation for which complete program could not be implemented. The marked feature during the training program was that he was very slow in making responses. He used to give up the task after one or two responses. To resume responding he had to be persuaded repeatedly.

8. Tutu: He is a 14 years old boy having an M.A of 6.0 years. He was trained on coin recognition skill in experiment-2.2 and 3.2. The baseline of experiment-2.2 revealed that he knew recognition of 100 paise. He was trained on 5 paise, 10 paise, and 20 paise. After application of the intervention he could acquire the recognition ability on these trained exemplars.
The post test and pre-test pattern as noticed in Tandia in the same experiment was observed in this subject also. To counter this pattern of performance, the format of pre-tests and post-tests was modified.

He was once again trained in experiment-3.2 on coin recognition skill with the revised procedure. In the baseline of experiment-3.2 he demonstrated almost perfect performance on 5 paise, 10 paise and 100 paise. He knew 100 paise even before experiment-2.2. The baseline ability to recognize 5 paise and 10 paise seems to be a carry over of the training of experiment - 2.2. The performance over sessions revealed fluctuating trend for 5 paise and 10 paise suggesting need for further training for consolidation. On 20 paise he was trained for 13 sessions but he could never attain perfect performance on a pre-test of this coin. With intervention he could attain perfect performance on 25 paise. At this point he had become violent. The summer vacations were approaching. He is a hosteller, he wanted to go home early but was not permitted by the school. For this and other reasons, he used to loose his temper. On two occasions he tried to steal the money used in the experiment by breaking the almirah, once in the night and second time on a holiday. For these tendencies, the program had to be terminated.

9. Susil: He is a 16 years old boy having an M.A of 7.5 years. He was trained on coin naming skill in experiment-2.3. In the baseline, he had satisfactory performance on 20 paise and 100 paise. During the process he exhibited perfect performance on 5 paise and 10 paise without any direct intervention. He was trained on 25 paise and 50 paise. With intervention he could attain criterion level of performance on these coin types also. After completion of the training program he was tested in random order. He failed to name the coins, on random assessments. Hence, he was given training on four coin types - 10 paise, 25 paise, 50 paise and 100 paise in 14th session. With this training he achieved the required level of performance. On post training assessment he failed on 10 paise, 25 paise, and 50 paise. The generalization across settings and “experimenters” was done only on 18th session. He failed to generalize the training outcomes. He probably needed training in the concerned setting for generalization.

10. Bulu: He is a 14 years old boy having an M.A of 6.0 years. He was trained on coin naming skill in experiment-2.3. His performance was quite satisfactory on 5 paise, 20 paise,
and 100 paise. He was trained on 10 paise and 25 paise. On 25 paise he reached the perfect performance and on 10 paise he reached the perfect level of performance only once. After that he could not attain the criterion level performance on this coin. No substantial effect of training have been judged in this subject. During the actual training periods he used to look here and there, and ask irrelevant questions.

11. Neeta: She is a 23 years old down syndrome girl having social age of 3.0 years. She was trained on coin matching skill in experiment- 3.1. In the baseline she had a chance level performance on all coins. She was trained on 5 paise and 10 paise for 19 sessions. She failed to show any substantial improvement. Her performance on trained and untrained coins was quite similar. She appears to have failed to acquire the skill because of her very severe level of disability. The qualitative observations during the training program also revealed that she usually did not scan all coins. Upon instructions she used to give coins indiscriminately.

12. Babu: He is a 10 years old boy having an M.A of 4.0 years. He was trained on coin naming skill in experiment- 3.1 He was trained on 10 paise and 20 paise. He used to attain the criterion level performance on trained coins but failed to retain over subsequent sessions. During the training trails it was noticed that he gave a particular coin type incorrectly repeatedly. During the training of 10 paise, he incorrectly gave 20 paise. To counter this pattern, the exemplars of 20 paise were temporarily removed. With this modification in the procedure he acquired the trained exemplars. On 5 paise and 25 paise he acquired and maintained the perfect performance probably due to the generalization effect. The generalization effect seems to have affected the performance on 50 paise and 100 paise also. Initially, he was trained on 10 paise, after acquisition of 10 paise, the training moved to 20 paise. While under training of 20 paise the attained performance of 10 paise was lost. Hence, the training had to be reverted to 10 paise. The overall pattern suggests that had the training been continued for some more sessions, he could have acquired the skill.

13. Debdutta: He is a 14 years old boy having an M.A of 5.0 years. He was trained on coin matching skill in experiment- 3.1. During the baseline his performance was almost at
chance level. He was trained on 5 paise, 10 paise, 20 paise and 50 paise. He acquired and maintained the performance on trained exemplars. His performance on 25 paise improved and remained at perfect level without any direct intervention to this coin. Some improvement in matching of 100 paise is also observed due to the generalization effect. He had discontinued the schooling for summer vacation, with continued intervention, his performance would have improved on remaining exemplars.

14. Pabitra: He is a 10 years old boy having an M.A of 4.0 years. He speaks only a few words. Initially, coin naming skill was targeted for him. Due to his limited vocabulary, he failed to acquire naming skills, the program had to be shifted to recognition skill. During coin recognition skill he was trained on 5 paise for 10 session. With this intervention, he could never attain perfect performance on any of the pre-tests. There might be two reasons for this failure. First, he did not have required level of cognitive and behavioral functioning for coin recognition skill. Second, the training procedure was not effective.

15. Bikram: He is a 11 years old Down syndrome boy having an M.A of 4.5 years. He was trained on coin recognition skill in experiment- 3.2 During the training program his performance on 5 paise and 10 paise improved which was maintained over subsequent sessions. For 25 paise the intervention was applied for two days. No effect on 20 paise was observed. Further, training on 20 paise and remaining coins could not be undertaken because he had discontinued to attend the institute. It seems that he could have acquired the skill.

16. Lalit: He is a 20 years old male having an M.A of 6.5 years. He was trained on coin recognition skill in experiment 3.2 He knew naming of 10 paise, 50 paise, and 100 paise and recognition of 5 paise and 100 paise before entry to the program. During the coin recognition skill training he needed to be trained on 10 paise, 25 paise, and 50 paise, only. With a short intervention of 9 sessions he could acquire and maintain the recognition skill on all trained and untrained coins. This relatively fast acquisition suggest that he probably knew the recognition skill. The training program simply facilitated the revival of already learned skill which was further facilitated by baseline naming skill. The generalization probes across
settings and experimenters suggested a poor generalization of the skill. To enhance the level of generalization he probably needed training in the concerned setting.

17. **Pradipta**: He is a 14 years old boy having an M.A of 6.0 years. He knew recognition of 5 paise, 10 paise, 25 paise, and 100 paise to some extent and naming of 5 paise and 100 paise, in the baseline. He was trained on naming of 10 paise, 20 paise, 25 paise and 50 paise in experiment-3.3 His performance on 10 paise, 20 paise, and 25 paise improved with training. But he failed to sustain the improvement on 10 paise and 20 paise. The pattern of overall performance suggests that he could have acquired and maintained the skill with continued intervention.

18. **Seema**: He is a 12 years old boy having an M.A of 7.0 years. He was trained on paper money matching skill in experiment-4.1 and on paper money naming skill in experiment-4.2 His entry number concept revealed that he could match the corresponding numbers of paper money. He had some difficulties in matching numbers 2 and 5. He used to interchange these numbers on baseline assessment. During the paper money skill training program he was given cue of the numbers printed on notes. With this cue he could smoothly attain and maintain perfect performance on Rs 1, 2, 5, 10, and 100. He had some difficulties on Rs. 20 and, Rs. 50. Considering the pattern of responses on these two exemplars it was presumed that in the process he would make up the difficulties. Instead of continuing the program for matching, it was shifted to paper money naming skill. On all trained exemplars he could attain and maintain the perfect performance. Some problems were encountered on Rs. 5. He was trained on this exemplar for 10 sessions. He failed to attain perfect performance. So the program was shifted on Rs. 10 and Rs. 20 while under training of Rs. 10 and 20 his performance on Rs. 5 improved spontaneously. The pattern of over all responding suggests that he could have attained and maintained the skill with continous intervention
The series of experiments conducted in the present investigation resulted in the
development of a four steps teaching procedure for teaching coin matching and coin recognition
skills. The procedure has essentially been derived from the work of Mc Ivor and Mc Ginley
(1983), and Llorente and Gaffan (1989) who adopted an "errorless" procedure for teaching
recognition of one U.S. coin and seven British coin types respectively. For teaching coin
naming skill, first three steps of the above procedure was excluded and the teaching was
done with only last step.

The quantitative and qualitative observations of the experiments particularly of phase-1
facilitated the development of the teaching strategies finally applied in the investigation.
Besides, teaching procedures, several other aspects of the teaching strategies like baseline,
pre-tests, post-tests, criteria for termination, etc. have also been standardized for the sake of
uniformity and replication. The specific components of entire strategies have been detailed
under phase-2 and phase-3.

In experiment-4.1 paper money matching skill was taught to the subjects. Initially,
a systematic replication using all four steps of the teaching procedure for coin matching skill
was scheduled. But during the baseline assessment it was revealed that both subjects had
number matching skill. In the light of this finding, the subjects were given the cue of the value
of paper money printed on the notes for matching the same. With this cue only the subjects
could smoothly acquire the matching ability of paper money.

Several investigations (e.g., Etzel and Le Blanc, 1979; Lambert, 1983; Lancioni and
Smeets, 1986; Zawlocki and Wallis, 1983) have reported the superiority of distinct feature
prompting in teaching discrimination to the mentally retarded persons. For coin matching and
paper money matching skill the distinct feature prompting would involve highlighting and
emphasizing the value of coin/note inscribed over it. Those subjects who lack the required
skill of number matching are either unlikely to be benefited by such prompting or would take
quite a longer time to acquire the discrimination. An alternative effective strategy for teaching
coin matching could be first teaching the subjects matching of corresponding numbers of
coins, and then extending the acquired ability on to coin matching skills. The feasibility of such
an approach could be explored by future investigations.
The coin matching skill is usually taught to very young mentally retarded persons who not have yet acquired the matching of numbers. In experiment-1.1 the subjects have been noticed to have failed in understanding the prompt of numbers inscribed on the coins. Thus the use of distinct feature prompting become limited in such instances. Under the circumstances, the experimenter is forced to evolve other strategies.

All other prompting strategies would involve use of one or other non-critical feature-size and shape. Considering this, no explicit stimulus or response prompts were invoked for teaching the coin matching skill in experiments 2.1 and 3.1. Instead, the task was arranged in a manner to enable the subjects to evolve their own cues for matching the coins. The first step of the teaching procedure always resulted in correct response by the subject. Then the difficulty level of discrimination was gradually enhanced up to fourth step.

In phase-1 quite flexible teaching procedure was adopted to teach coin matching to the subjects. Both subjects of the phase could acquire substantial ability to match the coins. In successive phases 2 and 3 the subjects could acquire the matching skill on trained exemplars of the coins. Due to the prolonged absence of the subjects of phase 2 and 3 for winter and summer vacations the program could not be continued up to the acquisition of each coin type. With exception of one subject-Neeta of experiment-3.1 other subjects showed quite positive trend of acquisition on the trained exemplars. Neeta had very severe level of disability for which she could not be benefited substantially and she had to be terminated from the training program. Babu of the same experiment used to give one particular coin type incorrectly during the training. To correct this pattern the exemplars of the specific coin type had to be removed temporarily from the set. Such withdrawal led to the acquisition of matching skill on the trained exemplar of the coins. Krishna of experiment-2.1 was found to respond very slowly. He needed repeated persuasion to complete the task. Sometime, the training session had to be discontinued for his too slow responding. To sum up, the evolved procedure appears to result in acquisition of the matching skill by the subjects. However, in some cases, the procedure need modification considering the response pattern of the subjects. In fact, it would be impossible to evolve an universal teaching procedure. The modification in the application of already available procedure is a rule rather than exception.
The training for coin recognition skill was given under two conditions. Firstly, a subject was first trained on coin naming skill and after acquisition of naming skill he/she was recruited for coin recognition skill. Secondly, a subject was trained on only recognition skill directly without prior training on naming skill.

Majority of the subjects under second condition acquired and sustained some coin recognition skill in first three phases. Lalit in experiment-3.2 acquired the skill quite smoothly probably because he knew the skill prior to entering to the program. The training procedure simply facilitated the earlier learned skill.

The recognition skill under first condition was taught to two subjects, one in experiment-1.2 and second in experiment-3.2. Usha in experiment-1.2 could acquire the recognition skill with relatively short intervention. But Tandia in experiment-3.2 failed to acquire the recognition skill on trained exemplars. There might be several reasons for this. First, Usha had relatively very high level of cognitive and behavioral functioning than Tandia. Second, Usha had overlearned the coin naming skill before entering to the recognition skill training than Tandia. Third, the prompting strategies in experiment-1.2 were quite flexible whereas this liberty was not available to the experimenter in experiment-3.2. The qualitative observation dictates that Usha's better level of functioning and her overlearned naming ability were responsible for the discriminant performance.

The most smooth program was noticed to be coin naming skill training. Majority of the subjects responded quite positively to the features of the training program. Only one subject of experiment-1.3 failed to acquire the substantial ability to name the coins after training. Rest subjects made at least some progress with the training procedures.

An attempt was made to make the procedures "errorless". The results showed that the percent errors for coin matching skill ranged from 8-25% with an average of 14.70%, for coin recognition skill the percent errors ranged from 0-15% with an average of 5.70%, and for coin naming and paper money naming skills the range of percent errors was 0-9 with an average of 2.10%. It has been noticed that maximum errors were obtained for coin matching skill followed by coin recognition skill and naming skill. In third phase, for coin recognition and coin naming skills some subjects committed few errors. The obtained errors particularly for coin matching skill would suggest further modification in the teaching procedure to reduce the extent of errors.
Various forms of errors have been noticed. For matching skill the most prominent errors were due to similarities/differences in size, shape, and glaze of the coins. The errors due to inattention, lack of requisite skill, and error learning were also obtained. For recognition and naming skill the errors due to inappropriate generalization were more prominent. The systematic arrangement of the tasks in finally adopted procedure led to considerable reduction in the type and quantity of errors.

Llorente and Gaffan (1989) indicated difficulty in recording the correct and incorrect responses of the subjects during the training sessions. Hence, no data of errors and the number of trials for acquiring the skill was available. In the present investigation no such difficulty was encountered, even though the recording of the responses was quite obvious to the subjects. The data of training trials, in summary, indicated that the subjects did not require equal number of training sessions or training trials to attain the criterion performance on the target skill. Quite large variations have been noticed. A few reasons for unequal number of training trials could be that learning of some coins/notes facilitated or interfered with the acquisition of other coins/notes. The subjects who had better level of functioning in number skill, and other areas of cognitive and behavioral functioning required relatively less number of training trials than more severe cases. Since, many subjects of phase-2 and phase-3 could not reach the criterion performance on all six coin types it would be difficult to ascertain the average number of trials required by the subjects to attain the skill.

The findings of the present investigation indicated that the subjects who were taught recognition skill before teaching coin naming skill failed to acquire complete recognition skill. So, no global generalization from comprehension to naming could be assessed. However, there are some instances where generalization from recognition to naming was obtained. Two subjects-Usha and Tandia were taught coin recognition skill after teaching coin naming skill in experiment-1.3 and 3.3 respectively. Usha did not exhibit any spontaneous generalization over recognition skill. But she could acquire recognition of the coins with relatively short intervention. The acquisition of coin recognition skill by her within a short period probably evidenced generalization of coin naming skill. Tandia, however, demonstrated quite unexpected trend. He was trained on three exemplars during coin recognition skill training, he failed to acquire the skill on these trained exemplars. But he demonstrated perfect performance on rest three untrained coins which clearly reflect the effect of generalization from coin naming
skill training. This generalization effect was not evident immediately. During the course of training this performance became noticeable. Bibhu was given training for coin naming skill in experiment-3.3. Before this training he was trained for coin recognition skill in experiment-1.2. On baseline of coin recognition skill before experiment-3.3 he recognized only 5 paise and 100 paise correctly. After acquiring the coin naming skill he could recognize every coin type correctly suggesting the effect of generalization. The pattern of generalization obtained in this investigation seems to support the findings of Cuvo and Riva (1980) on this issue.

The acquisition of untrained exemplars of the coins would reflect the effect of generalization or effect of non-specific factors (e.g., experimental history). For coin matching skill considerable generalization can be anticipated. In the process of training, the subjects are expected to acquire the ability as how to match the coins (i.e., the requirement of the tasks). For coin recognition and coin naming skill they are required to associate a verbal label with the coins, hence, little generalization can be anticipated. The emergence of relations under matching skill training predominantly would reflect a case of generalization across untrained coins and for recognition and naming skills this would indicate a cross modal generalization or effect of non-specific factors. Some amount of generalization effect across untrained coins for coin recognition skill can be obtained for later trained coins due to the process of elimination of earlier trained exemplars and reasoning. There can be several indicators for generalization. Firstly, the most prominent case would be emergence of perfect performance on untrained exemplars which remains stable throughout subsequent sessions. Secondly, emergence of perfect performance on some sessions which do not persist over subsequent sessions. Lastly, the higher level of performance than observed in the baseline but less than the perfect performance.

The analysis of data of coin matching skill demonstrated that every subject demonstrated generalization across untrained exemplars to a varying degree. In some subjects large enough matching relations emerged without any direct training. For coin recognition and naming skills a few instances were obtained where the perfect performance emerged and continued without any direct training. Most of such instances reflect cross modal generalization than direct effect of trained exemplars. A point to point comparison of performance on post-test of a session with the performance on pre-test of next session revealed some instances of the effects of non-specific factors.
Three forms of maintenance have been identified and tested in the present investigation. First, maintenance of the acquired perfect performance over subsequent sessions during the training program. Second, maintenance of the acquired skill in experimental setting after discontinuation of the training program. Third, maintenance of the acquired skill in extra-training settings. It has been observed that for coin matching skill, coin naming skill and for coin recognition (after naming skill) there was good maintenance on all three dimensions. Marked fluctuations have been observed with recognition skill (without prior training on naming skill).

The generalization assessments across settings and experimenters indicated smooth generalization of coin matching skill. Though good generalization of naming skill has been obtained but in some subjects the generalization could not reach the optimum level. The most sensitive skill for this sort of generalization has also been found to be recognition skill.

Initially, a replication of the devised procedure for each coin skill had been intended. But replication of only naming skill could be done. The application of teaching procedure for coin naming skill resulted in improvements of paper money naming skill.

**CONCLUSION:** Though replicable strategies for teaching coin skills could emerge in the present investigation, it is not intended that the procedure be followed strictly in teaching and training the mentally retarded persons. Because to claim to have developed a universally applicable strategy would be contrary to the fundamental assumption of individual differences on which the field of special education and psychology rely quite heavily. With appropriate scrutiny and observations the strategies could be applied in day to day practice. The pattern of acquisition suggested that the teaching procedure for matching skill may further require addition of some more prompts to facilitate fast acquisition of the skill.

The teaching of matching and naming skills has been found to be quite smooth than teaching of recognition skill. Acquisition of recognition skill has been found to be facilitated by prior acquisition of the naming skill. The following order of skills: matching-naming-recognition may be considered over the sequence of matching-recognition-naming.

The subjects usually maintain the acquired skill over time but generalization across settings and "experimenters" may not be spontaneous. The subjects may need training for facilitation of generalization across intended settings and persons.