

CHAPTER - 4

**DATA ANALYSIS,
INTERPRETATION AND
DISCUSSION**

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4.0 INTRODUCTION

The data were analyzed with the help of appropriate qualitative techniques and they were interpreted in order to arrive at the inferences. The information collected using various tools and methods have been analyzed under six sections which are as follows –

- Section – 1 Data regarding age wise and IQ wise classification of the sample.
- Section – 2 Data regarding the causes of mental retardation using the Case History Method.
- Section – 3 Data regarding the major types of problem behaviours observed in children having mild or moderate mental retardation using BASIC-MR.
- Section – 4 Data regarding the types of modification techniques applied and its effectiveness were analyzed on the basis of the occurrence and the frequency of the problem behaviours measured through BASIC-MR every three months and then through regular observational follow-ups till Dec.'07.
- Section – 5 Six case studies presented on the basis of their significant improvement as a result of the implementation of modification techniques.
- Section – 6 Data regarding teachers and parents impression and opinion about the techniques and its effectiveness on their children noted through the anecdotal records maintained by them, and by interviewing them.

Section – 1

The sample for the study comprised of thirty children having mild or moderate mental retardation. These thirty children were of different age groups.

4.1 Age wise Classification of the Children

Age Range →	5 – 8 years	8 – 11 years	11 – 14 years	14 – 17 years
Number of Children (30)	13	08	06	03

The children who were selected for the study were between the age groups of 5 years – 17 years. The reason behind taking this age group was that with children below five years, it becomes very difficult to implement the modification techniques and so the desired changes cannot be attained. Similarly with the children above seventeen years it becomes difficult to convince them as the reasoning during this age group is higher so they would not accept the instructions easily.

For the present study thirteen children belonged to the age group 5–8 years which implied that majority of the sample comprised of this age group. Eight children belonged to 8–11 years, six in 11–14 years and three children belonged to the age group of 14–17 years. From the above data it can be interpreted that younger children are more regular and punctual in attending any institution and as they grow older their regularity and punctuality decreases.

As stated earlier these thirty children were categorized as having mild or moderate degree of mental retardation. These degrees of categorization was based on the intelligence quotient which was obtained by assessing them on an intelligence scale (Binet–Kamat Test of Intelligence). The IQ levels of these children were found out by the psychologist at ARPAN.

4.1.2 IQ wise Categorization of the Children

Categories →	Mild	Moderate
Number of Children (30)	10	20

From the above data it can be seen that ten children belonged to the mild category whereas twenty fall under the moderate category of classification.

Here children having mild and moderate categories of mental retardation have been taken. The reason behind this was that, for this study the children had to undergo lot many activities and follow the instructions given. Mild and moderate category children are those who has the capacity to undergo all the activities and follow the instructions given. Whereas children having severe and profound category of mental retardation would face problems in performing the activities and comprehending the instructions given. As a result the effectiveness of modification techniques cannot be judged.

Section – 2

Causes of Mental Retardation for the Present Sample

4.2 Mental Retardation is a condition which occurs due to many reasons. These reasons or causes for mental retardation can be studied as pre-natal (before birth), natal (During birth) and post-natal (after birth) causes.

One of the objectives for the study was to prepare a profile of each child and to find out the causes of mental retardation. This was done by collecting the information of each child by taking case history. All the children have different causes for their respective conditions ranging from pre-natal, natal to post-natal causes.

4.2.1 Case wise discussion of the causes

Case-1. This child is a moderately affected child with cerebral palsy as its comorbid condition. She has a history of prematurity. The aetiology for her was her mother suffered from high blood pressure during the 2nd trimester. The child also suffered from convulsions immediately after birth and was in coma for two days. So her mother's condition and the post natal history has been the cause of her condition.

Case-2. This child is a moderately affected child with cerebral palsy as its comorbid condition. She has a history of prematurity and low birth weight. She suffered from neonatal jaundice after two days of birth and convulsions which persisted for the whole year. So was kept in an incubator for a month. So for her convulsions, jaundice and low birth weight may be the major causes of her present condition.

Case-3. This child is a moderately affected child who also has speech impairment. He has a history of having infection after 2 days of birth. So this infection may be the cause of his present condition. He also has a family history where in his maternal aunts son has mild degree of mental retardation.

Case-4. This child is a moderately affected child whose mother suffered from high blood pressure throughout nine months of pregnancy. The child has a history of birth asphyxia (did not cry immediately after birth) but cried after 10 minutes after splashing water and also she suffered from neonatal seizures for a whole day. So for her, her mothers condition, birth asphyxia and convulsions may have been the causes for mental retardation.

Case-5. This child is a mildly affected child who has a history of prematurity (born at 7½ months) and neonatal jaundice immediately after birth. So prematurity and neonatal jaundice may have been the cause of his present condition.

Case-6. He is a mildly affected child with hyperactivity and speech impairment as its comorbid conditions. As such he has no pre, natal or post natal causes.

Case-7. He is a moderately affected child with dysmorphic features – bulging and protruding eyes and dysmorphism in palms and legs. His mother suffered from high blood pressure during the nine months of pregnancy. He also has a family history in which three of his siblings expired due to some unknown cause and hydrocephalus. Doctors suspect his condition as being genetic.

Case-8. He is a mildly affected child who has no eventful birth history but his mother fell down at 9th month of pregnancy after which the movements of the child became still. So his mothers condition may be the cause of his condition.

Case-9. He is a mildly affected child who suffered from neonatal seizure, after 2 days of birth so was in incubator for 2 days. His mother also suffered from high blood pressure during pregnancy. So the neonatal seizures and his mothers condition may be the cause of mild degree of mental retardation.

Case-10. He is a mildly affected child who has no eventful birth history or any other family history. During infancy period i.e. till the age of 2 years he suffered from illness severe cough, cold and fever. According to his mother he was also quiet anemic due to which he caught infections easily. Doctors suspect his frequent illness, low resistance and anemia as the cause of his present condition.

Case-11. He is a moderately affected child with cerebral palsy as the comorbid condition. He does not have any peri or post natal history. He had a twin brother who collapsed at 5 months of pregnancy but as the other foetus was surviving it became very difficult to remove the still foetus. It took some time to remove the foetus so according to the doctors this may have caused some effect on the child.

Case-12. He is a mildly affected child who had aspirated amniotic fluid and suffered from neonatal convulsions after 12 hours of birth but no treatment was given for the same. So this may be the cause of mild mental retardation.

Case-13. She is a mildly affected child with mild degree of hearing and speech impairment. She wears a hearing aid. She suffered from high grade fever after 3rd day of birth which did not go down for almost ten days in spite of proper medication and treatment. So her high grade fever may be the cause of mental retardation, hearing and speech impairment.

Case-14. He is a moderately affected child with cerebral palsy. He has multiple causes for his condition. His mother had high blood pressure throughout nine months of pregnancy and was under medication for hyperthyroidism. The child was a premature baby (born at 8th month) with birth asphyxia (cried after 5 minutes of birth). He also suffered from gastro intestinal and intra cranial bleeding within 24 hours after birth so was in incubator for four days.

Case-15. He is a moderately affected child with Down's Syndrome a genetic condition which occurs during permutation – combination of cells. Here there is an extra growth on the 21st pair of chromosome. This genetic condition is the cause of mental retardation. He also has a history of prematurity (born at 8th month).

Case-16. He is a moderately affected child but not pre, peri or post natal history.

Case-17. He is a moderately affected child with a history of low birth weight and no other eventful pre, peri or post natal history.

Case-18. She is a moderately affected child with a family history but no eventful birth history. She had two elder siblings who are not surviving at present. The first sibling was a full term normally born child whose lungs had not fully developed so suffered from respiratory distress and died after four days of birth. The second sibling suffered from some infection at 5th month of pregnancy and died at the completion of 5th month. So for her this may be the cause of mental retardation.

Case-19. He is a moderately affected child who has no eventful birth history but at one year six months had severe infection and suffered from severe cough and cold. He also has a family history i.e. paternal uncle's son is a child having mental retardation.

Case-20. She is a moderately affected child with Down's Syndrome as its comorbid condition. She has a history of birth asphyxia (Did not cry immediately after birth, cried after 2 hours) so was in incubator for one day.

Case-21. She is a moderately affected child with autism (a neurological disorder which is pervasive in nature) as a comorbid condition. Her mother had bleeding since one and half months of pregnancy which continued till her birth. The child suffered from high grade fever on second day after birth so was incubated for 4 days. So there are prenatal and postnatal causes for her present condition.

Case-22. He is a moderately affected child who has a history of birth asphyxia (cried after 15 minutes of birth) so was in incubator for half an hour. He also suffered from very low birth weight in spite of being a full term baby. So his low birth weight and birth asphyxia may have been the causes of mental retardation.

Case-23. He is a moderately affected child with birth asphyxia (cried after 6 minutes of birth). He also suffered from neonatal seizures on the second day of

birth which still persists but no medication has been given for the same. So his birth and the neonatal seizures, may have been the causes of moderate degree of mental retardation.

Case-24. He is a mildly affected child with no eventful birth history but since two months of age he suffered from frequent high grade fever. Doctors suspect that during one of such high grade fevers he might have had convulsions which might have had affected his brain cells. This may be the causes his mild cognitive delay.

Case-25. He is a moderately affected child with Down's Syndrome as its comorbid condition. It is a genetic problem. He also had feeble cry so was kept in incubator for two days. His genetic condition is the cause of mental retardation.

Case-26. He is a moderately affected child with no eventful birth history. At three months he had first convulsive attack due to high grade fever but at that time no treatment was given. He again had convulsions at 6 months and 3 years after which the treatment started. So convulsions at three months may have been the cause of mental retardation. Apart from this he also has family history wherein the youngest of his four sisters is also diagnosed as having mental retardation.

Case-27. He is a moderately affected child with cerebral palsy. He had birth asphyxia (cried after 2 days of birth) and also suffered from respiratory distress so was on ventilator for two days. So his birth asphyxia and respiratory distress may have been the causes of mental retardation and cerebral palsy.

Case-28. He is a mildly affected child with a history of neonatal seizures immediately after birth which continued till the age of two years but no medicine has been given. His EEG report also shows abnormality in his brain functioning. So for him convulsions have been the reason for his brain damage which has led to mental retardation.

Case-29. He is a mildly affected child who has a history of infection on 2nd day of birth so was in incubator for three days. He had blood clots all over his body due to lack of red blood cells. So three bottles of blood was induced one after the other after two and half hours of his birth. He also suffered from pneumonia and severe congestion within two days of birth so there are multiple causes for his mental retardation. He also has partial hearing impairment along with mental retardation.

Case-30. He is a moderately affected child who grew and developed normally till the age of one and a half years but then suffered from first convulsive attack which continued for two more years in spite of regular medication. So this has been the cause of his present condition.

From the sample for the study, the following causes of mental retardation were identified.

4.2.2 Causes of Mental Retardation (A etiology)

	Causes	Number of Children
1.	Neonatal Convulsions / Seizures	9
2.	Infections / Illness	9
3.	Birth Asphyxia	8
4.	Mothers Condition	7
5.	Prematurity	5
6.	Family History	5
7.	Genetic	4
8.	Low Birth Weight	3
9.	Neonatal Jaundice	2
10.	Aspirating Amniotic Fluid	1

4.2.3 Discussion

Majority of the children comprising the sample, had neonatal convulsion (seizures) and infections as the major cause for their present condition.

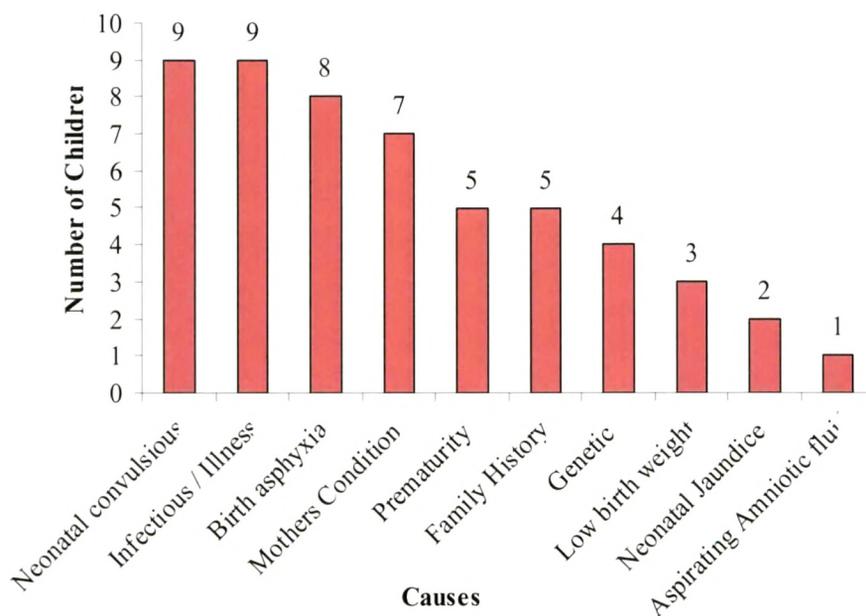
The second major cause for mental retardation was birth asphyxia. Even if the child did not cry for a minute then he develops risk of developing mental retardation. For the present study the cases taken for the sample reveals that all the eight cases discussed cried after 10 minutes or more time.

Mothers condition has also come out to be a cause of mental retardation. Here majority of the mothers suffered from high blood pressure, had some trauma or an accident while expecting.

Prematurity is another cause. Here the children were born before the due date due to which as they are not fully developed physiologically there chances of being at risk for mental retardation increases. For the present study also five children comprising the sample have prematurity as the cause of their present condition.

The other causes of mental retardation in the sample for the present study are Genetic, low birth weight, neonatal jaundice and respiratory distress due to aspirating the amniotic fluid.

4.2.4 The causes of mental retardation



4.2.5 These causes were then categorized into three major classification as per the causes occurring before birth, at the time of birth and after birth.

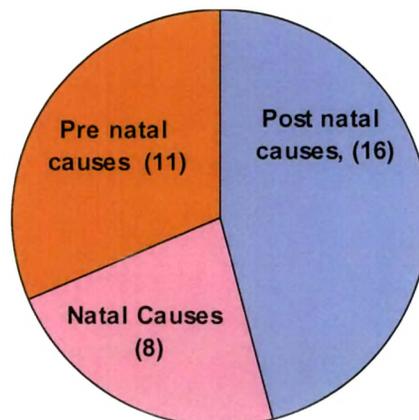
Categorization of Causes	Number of Children
Prenatal causes	11
Natal causes	8
Post natal causes	16

The categorization was done taking into account the causes which occurred before birth of the child. These causes included mother's condition, the Genetic causes, low birth weight. The natal causes comprised of the causes occurring at birth which included prematurity, aspirated amniotic fluid, birth asphyxia. The post natal category comprised of the causes which occurred after the birth. These causes included neonatal jaundice, neonatal convulsions, infections and illness.

The majority of the children fall under the post natal causes. Then comes the prenatal causes i.e. the causes which occurs before birth and few at the time of birth.

It was also found that due to advancement in medicine the life of the child could be saved but the child could not be saved. This is the reason why in spite of so much advancement in medicine the prevalence of mental retardation is increasing. This has been confirmed by the WHO survey (2007). i.e. from 2 percent to 3 percent increase in the population of persons having mental retardation.

4.2.6 Categorization of the Causes of Mental Retardation



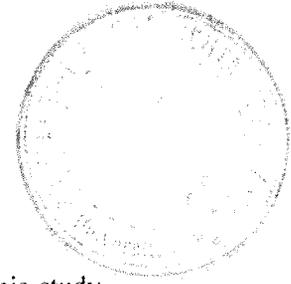
4.2.7 Major Findings

There are different causes for the occurrence of mental retardation.

There has been one or more than one cause for the occurrence of mental retardation in the children selected for the study.

The categorization of causes does overlap due to more than one cause for the occurrence of mental retardation.

Majority of the cases selected for the study have the post natal factors as the causes of mental retardation.



Section – 3

Problem Behaviours

4.3 In this section problem behaviours observed in each child in this study were found out using BASIC-MR. BASIC-MR is the tool which was used to identify the problem behaviours in the children who were taken for the study. BASIC-MR is divided into 2 parts. Part A consists of all the items pertaining to the activities of daily living. Part B consists of the problem behaviours categorized under ten major domains.

4.3.1 Different problem behaviours identified in each child

Case–1. Violent and destructive behaviour, misbehaves with others, self injurious behaviours, repetitive behaviours, odd behaviours, hyperactivity, anti social behaviours, fears.

Case–2. Temper tantrums, misbehaves with others, self injurious behaviours, repetitive behaviours, odd behaviours, hyperactivity.

Case–3. Violent and destructive behaviour, misbehaves with others, repetitive behaviours, odd behaviours, hyperactivity.

Case–4. Violent and destructive behaviour, temper tantrums, misbehaves with others, self injurious behaviours, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

Case–5. Violent and destructive behaviours, temper tantrums, self injurious behaviours, repetitive behaviour, odd behaviour, rebellious behaviours.

Case–6. Violent and destructive behaviours, misbehaves with others, hyperactivity, rebellious behaviours.

Case–7. Misbehaves with others, self injurious behaviours, odd behaviours, hyperactivity.

Case-8. Violent and destructive behaviours, repetitive behaviour, hyperactivity, rebellious behaviour, fears.

Case-9. Violent and destructive behaviour, Temper tantrums, repetitive behaviour, hyperactivity, rebellious behaviour.

Case-10. Misbehaves with others, Violent and destructive behaviour, odd behaviours.

Case-11. Violent and destructive behaviour, temper tantrums, misbehaves with others, self injurious behaviour, Repetitive behaviour, hyperactivity, rebellious behaviour.

Case-12. Violent and destructive behaviour, temper tantrums, repetitive behaviour, hyperactivity.

Case-13. Temper tantrums, misbehaves with others, odd behaviour, hyperactivity, rebellious behaviour.

Case-14. Violent and destructive behaviour, Temper tantrums, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour, fear.

Case-15. Misbehaves with others, self injurious behaviour, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour, anti social behaviour.

Case-16. Violent and destructive behaviour, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

Case-17. Misbehaves with others, repetitive behaviour, odd behaviour, rebellious behaviour, fear.

Case-18. Violent and destructive behaviour, temper tantrums, misbehaves with others, self injurious behaviour, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour, anti social behaviour.

Case-19. Violent and destructive behaviour, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour, antisocial behaviour.

Case-20. Misbehaves with others, repetitive behaviour hyperactivity, rebellious behaviour, anti social behaviour.

Case-21. Violent and destructive behaviour, temper tantrums, misbehaves with others, self injurious, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

Case-22. Violent and destructive behaviour, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

Case-23. Violent and destructive behaviour, temper tantrums, misbehaves with others, odd behaviour, hyperactivity, rebellious behaviour, fear.

Case-24. Violent and destructive behaviour, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

Case-25. Violent and destructive behaviour, temper tantrums, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour, antisocial behaviour, fear.

Case-26. Violent and destructive behaviour, temper tantrums, misbehaves with others, repetitive behaviour, odd behaviour, hyperactivity, rebellious behaviour.

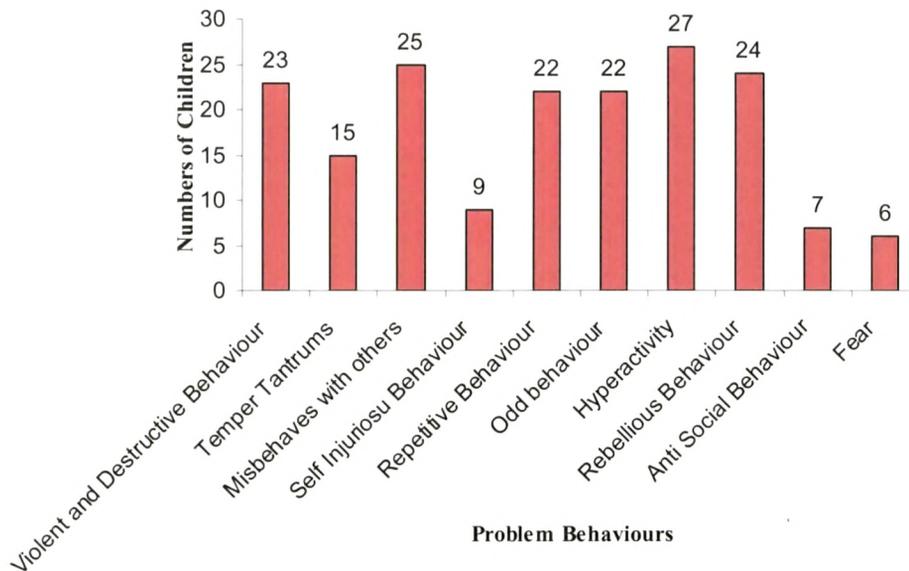
Case-27. Violent and destructive behaviour, temper tantrums, misbehaves with others, odd behaviours, hyperactivity, rebellious behaviour, anti social behaviour.

Case-28. Odd be behaviour, Hyperactivity, rebellious behaviour.

Case-29. Violent and destructive behaviour, misbehaves with others, repetitive behaviour, hyperactivity, rebellious behaviour.

Case-30. Violent and destructive behaviour, temper tantrums, misbehaves with others, hyperactivity, rebellious behaviour.

4.3.2 Pictorial presentation of the problem behaviours identified through BASIC-MR.



4.3.3 Discussion

Each child comprising the sample for the present study was assessed for the presence of problem behaviours using BASIC-MR. Analysis of each case reveals that –

All the children had more than one domain of problem behaviours. These behaviours did vary from child to child as far as its frequency and intensity was concerned.

On further analysis it was found that majority of the children i.e. twenty seven children from a sample of thirty had hyperactivity in varying degrees. This means that they have problems in paying attention to any particular task, could not pay attention to a particular task for required time and that they could not

complete a given task. They were quiet restless and had difficulty in concentrating on any particular activity. Due to hyperactivity, restlessness and lack of concentration they had problems in sitting in the classroom, had difficulty following the instructions given by the teachers. At home also they had many adjustment problems. People did not accept them readily and they felt neglected as a result their overall development was affected.

The second major problem behaviour observed was misbehaviour with others, which was observed in twenty five children. During investigation, it was seen that this behaviour is associated with hyperactivity in the sense that due to hyperactivity they were ignored and neglected. So to mark their presence they got involved into misbehaving with others. In this, they would not allow others to perform their task, make loud noise when others were working, dominate on others etc. Further it was noted that one of the causes of problem behaviour is for seeking attention and through this type of behaviours the children tried to seek attention of others.

The other problem behaviour observed was rebellious behaviour. Many times it has been found that children indulge into these kinds of problem behaviours in order to escape from any particular task. As such the sample comprised of children having mental retardation whose level of understanding is lower as compared to their normal counter parts. So they face problems in comprehending things. When comprehension is lower, creative expression is also less. So they indulge into rebellious behaviour.

Further more they also showed repetitive and odd behaviours. These behaviours occur due to self stimulating factors in which they get pleasure by indulging into these kinds of behaviours and they are reinforcing for them. So in order to seek pleasure they indulge into repetitive behaviour.

Odd behaviours in these children were observed when they wanted to seek attention from others. The other reason found was they lack that potential to comprehend things at proper time and place due to lower intelligence quotient.

Violent and destructive behaviour was another major problem behaviour which was identified in twenty three children. On analysis and anecdotal records provided by parents it was found that when children had problems in verbal or gestural expressions i.e. skill deficit cause they got indulged into these kinds of behaviours. Also children with hyperactivity showed this kind of behaviour. As due to hyperactivity they had those extra energies which were not fully or properly channelized then children indulged into violent and destructive behaviours. So it was a mode of expression for them and the outburst of those extra energies.

The other problem behaviour identified was temper tantrums. During the process of investigation it was found that children engaged in these kinds of behaviours when they have problems in verbal expression skill deficit and when their needs were not fulfilled by the concerned persons. For four children it was also found that over pampering and over attentiveness had been the cause of temper tantrums.

The next in the list was self injurious behaviours. Those behaviours occurred as a consequence of throwing tantrums, when others were inattentive towards the child, when he was left under stimulated or un stimulated or due to self stimulating factors. Each child showing this problem behaviour had a different cause for it.

At the end of the list were the anti-social behaviours and fears. These children comprising the sample had problems in judging what is right or wrong as they have poor reasoning skills. As a result of this they got engaged into anti-social behaviours like telling lies, stealing. Further it was also found that when they did not like any particular activity, in order to escape from that they indulged into antisocial behaviours like wandering outside the classroom. Two children even ran away from house when they were forced to sit and study.

Basically these children do not have fear of anything but while interviewing parents it was found that when these children did not listen to their parents or were being hyperactive then their parents induced some kind of fear in them.

This fear then slowly accumulated in them and they developed fear for any person, object or place.

4.3.4 Major Findings

There is no difference in the types of problem behaviours as far as gender is concerned.

The intensity and frequency of occurrence of problem behaviours differed from child to child.

Variety of problem behaviours were identified amongst each child under study.

Majority of the children had hyperactivity, misbehaves with others and rebellious behaviours.

Section – 4

Implementation of Behaviour Modification Techniques and its Effectiveness

4.4 This section comprises of different behaviour modification techniques which were used for each child comprising the sample. The modification techniques were used either individually or in combination with other techniques depending upon the problem behaviour, the need and condition of the child under study.

It also analyzed the effectiveness of these behaviour modification techniques as far as the resolution of the problem behaviours was concerned. The effectiveness of the techniques was analyzed and interpreted taking into account the scores obtained by each child on BASIC-MR at the end of one year.

4.4.1 Implementation of behaviour modification techniques and its effectiveness.

Different behaviour modification techniques were used in combination of one or two other techniques depending open the kinds of behaviour problems, their severity, need and condition of each child.

The techniques used have been analyzed and interpreted case wise.

Case-1. Reinforcement, time out, conveying displeasure, physical restraint

For this case the above mentioned techniques were used for different problem behaviours. For her primary reinforcement i.e. food items worked best. It was given so as to enhance the desirable behaviour which was shown by her.

The child was fond of different drawing activities. So whenever she showed some kinds of odd behaviours like laughing to self, toughing inappropriately or talking to self, time out technique was used where in the activity material was taken away from her. Further when she indulged into misbehaving with others or repetitive behaviours techniques of physical restraint and conveying

displeasure were used. As a result of which the frequency and the intensity of the occurrence of problem behaviours reduced or resolved completely. This is apparent from her scores ranging from 29 as the baseline score to 24, 24 and 15 at the end of each quarter respectively.

These scores further can be interpreted stating that due to her illness in middle of the study. She could not come regularly so not much change could be observed in her but definitely the modification techniques have definitely had an impact on her.

Case-2. Reinforcement, conveying displeasure, response cost, ignoring.

For her secondary reinforcement was more helpful. Especially the privileges which were given like making her the monitor of her group helped in resolving the problem behaviour of throwing tantrums as then she became the role model for others. Her repetitive and self injurious behaviours were controlled and resolved by using the technique of conveying displeasure. Further when she indulged into misbehaving with others, the techniques of response cost was used wherein she had to part away with the stars which she had received earlier because of desirable behaviour.

The odd behaviours like laughing to self and laughing inappropriately were controlled just by ignoring. The reason behind using ignoring was that while interacting with her it was observed by the researcher that she indulged into these kinds of odd behaviours so as to seek attention of others. So by ignoring this kind of behaviour initially for 3-4 days it increased but gradually it decreased and at the end of third month it was completely resolved. The effectiveness of these techniques could be seen by the scores obtained on BASIC-MR. They have been 30 as the baseline to 28, 22 and finally 11 at the 3rd quarter.

Case-3. Reinforcement, conveying displeasure, response cost

With this child the combination of three techniques was used. With him response cost was more effective like whenever he indulged into violent and

destructive behaviours he had to part with a pencil or eraser which he had earned as a material reward for his desirable behaviour. He has been very much fond of pencils and erasers. So he could not afford to loose them and there by indulged in desirable behaviour.

Further more, when he was being restless got distracted or could not attend to any activity as stated earlier he was given a material reinforcement whenever he became attentive or concentrated on any activity. This material reinforcement was pencil and eraser which he liked. This motivated him more to indulge into desirable behaviour by becoming more attentive and completing the task at hand. Whenever he misbehaved with others the technique of conveying displeasure was used. The effectiveness of the techniques could be seen through the changes in scores which were 24, 20, 15 and 01 from baseline to 3rd quarter respectively.

Case-4. Reinforcement, physical restraint, conveying displeasure

With her physical restraint along with reinforcement joined together was used whenever she indulged into hyperactivity. Even when she showed repetitive behaviours like rocking her body, nodding head grinding teeth physical restraint along with conveying displeasure was used.

Further when she completed any given task or sat for desired time without rocking her body, nodding her head or grinding teeth. She was given primary reinforcement. She was given some eatable due to which the desired behaviour increased and the undesired behaviour decreased and finally could be completely resolved. Her scores obtained at the end of one year are also suggestive of the effectiveness of the techniques used. Her scores being 40, 32, 21 and 08.

It was also noted here that as the child was amongst the most regular one's marked changes were observed in her. It can be stated from this that if there is a combination of behaviour modification technique along with sincere and regular

implementation of these techniques then drastic changes can be observed in the behaviour problems of each child.

Case-5. Conveying displeasure, Ignoring, Time out; reinforcement.

Time out was the most effective technique with this child. Whenever the child indulged into violent and destructive behaviours, the activity of writing in and eraser was taken away from him for a particular period of time. Due to this his violent and destructive behaviour reduced and at the end of 8th month it got completely resolved.

The child being the only child has been a very pampered child as a result he developed some behaviours like screaming or crying excessively as the attention seeking behaviours. For this ignoring technique was implemented and was very effective.

Conveying displeasure was used for his repetitive behaviours. That is every time he indulged into these kinds of behaviours, displeasure was shown by making him aware that what he was doing was undesirable. Finally whenever it indulged into desirable behaviour social reinforcement like patting, telling very good, excellent was used. His scores being 35 as the baseline to 30, 19 and 16 at different quarters implies the effectiveness of the techniques implemented.

Case-6. Conveying displeasure, physical restraint, time out, response cost, reinforcement.

Whenever he indulged into violent and destructive behaviour the techniques of conveying displeasure and physical restraint was implemented simultaneously. As a result of this his pinching and attacking behaviours was also used when he misbehaved with others.

For his hyperactivity and rebelliousness the techniques of physical restraint along with time out and response cost were implemented. Whenever he was being hyperactive he had to part away with the blocks which he loved to play

with and he was not allowed to play with them for the rest of the time till he was with the researcher.

Whenever he would complete the given task within the time allotted he was reinforced by giving activity reinforcement. That is he was allowed to play with the blocks which he liked. The scores obtained were 22 at the baseline to 15, 10, 07 for the 1st, 2nd and 3rd quarters respectively which are indicative of the effectiveness of the modification techniques.

Case-7. Reinforcement, conveying Displeasure this child had less problem behaviours in terms of frequency and intensity. For hyperactivity and misbehaving with others techniques of reinforcement and displeasure were used. When he attended a particular activity for given time and when he completed the task at hand he was reinforced by giving primary reward and when he misbehaved with others the technique of conveying displeasure was used. His score at the baseline level was 16 which slowly got reduced to 10, 7 and 3 respectively. This shows that if the techniques are used appropriately depending on the severity and need of the child, the results obtained can be remarkable.

Case-8. Physical Restraint, Response cost, Reinforcement

For this child the techniques of physical restraint, response cost and reinforcement were used simultaneously for his problem behaviours of hyperactivity and rebelliousness. When he showed hyperactivity that is when he did not complete any given task at hand or could not complete the given task or when he was out of his seat then physical restraint and response cost were used. When he completed his task or when he was on his seat he was reinforced by giving primary reinforcement.

Due to these techniques his baseline score reduced from 24 to 16, 7 and 4 which is indicative of positive effectiveness of the implemented techniques.

Case-9. Time out, physical restraint, conveying displeasure, reinforcement

When the child indulged into violent and destructive behaviour he was given time out technique in which he was not allowed to participate in the rhymes session which he enjoyed the most. As he was made to stand near the wall in which he could see as well hear other children participating in the session. Further when he indulged into hyperactive behaviour wherein he did not continue the task at hand for required time, got restless or distracted the physical restraint, and conveying displeasure were used. Again when he became calm, attended to any particular task for required time then he was given privilege reinforcement wherein he was allowed to play with the cutouts of animals which he liked very much.

His scores on BASIC-MR reduced from 26 as the baseline to 21, 12 and 05 at 1st, 2nd and 3rd quarters. These scores indicate that the techniques used were effective for this child.

Case-10. Conveying displeasure reinforcement when the child misbehaved with others or showed odd behaviour like laughing inappropriately, the technique of conveying displeasure was used. When he did not misbehave then social reinforcement was used in which words like 'very good, excellent, shabaash, good boy were used which further inspired him to indulge into desirable behaviours.

He had a very low score, as the baseline which was just 9. Then initially for two months he was quiet regular but then became very irregular so there wasn't much change in his undesirable behaviours observed. The scores came down from 09 to 07, 05 and 04 in the three quarters respectively. From this case it became clear that irrespective of the problem behaviours if regularity is not maintained then it would become difficult to resolve the undesirable behaviours.

Case-11. Physical restraint, response cost, conveying displeasure, reinforcement.

When the child indulged into violent and destructive behaviours technique of physical restraint along with conveying displeasure was implemented. When he indulged into hyperactivity he was made to part away with his own toy which he used to bring from home. It was taken away for that particular session and even after he went home. On the other hand when he was very calm, quiet and cooperative he was allowed to play with some more toys which he enjoyed. So, with the use of these techniques his scores from a baseline of 26 reduced to 20, 14 and 6 at the end of each quarter. The reduced scores prove the effectiveness of the techniques implemented.

Case-12. Physical restraint, conveying displeasure, time out, response cost, reinforcement.

Whenever the child indulged into violent and destructive behaviours the techniques of physical restraint and conveying displeasure were used. Further when he showed hyperactivity or rebellious behaviours then technique of time out and response cost were used interchangeably. In these techniques he either had to part away with his crayon box or he was not allowed to perform the activity of crayoning while the rest of the children were involved in that activity. But when he was quiet, on his seat and completed the given task he was reinforced by giving primary reward i.e. the nuts which he preferred the most. As a result of this his baseline score of 34 reduced to 27, 18, 7 which implied the resolution of the problem behaviour. It also suggested the effectiveness of the techniques implemented. This child was also very regular and his parents sincerely implemented the techniques given. Due to this marked difference in the terms of occurrence of problem behaviour was observed.

Case-13. Conveying displeasure, response cost, reinforcement.

The child had only two problem behaviours – misbehaving with others and hyperactivity. Whenever the child misbehaved with others by making faces to tease others or interrupting in between the technique of conveying displeasure was implemented in which through verbal and nonverbal communication, displeasure was conveyed. The child as falling in mild category could follow

this technique very well as a result it got resolved within four months of implementation of the techniques. Further when she indulged into hyperactivity the technique of response cost was implemented in which the child had to part with the erasers which she had earned while indulging into desirable behaviour as a part of reinforcement technique. Material reinforcement was given to her (erasers) when she was calm, performed the activity for required time and completed the task at hand. As a result of the implementation of these techniques her scores which were 24 at the baseline reduced to 19, 11 and 5 respectively.

The other reason for such a change has been the regularity and cooperation shown by her parents.

Case-14. Time out, response cost, conveying displeasure, ignoring, graduated exposure to fears.

When ever he indulged into violent and destructive behaviours, response cost and conveying displeasure was used. Whenever he hit or pinched a person he had to part with the salty nuts which he carried with him everyday as he likes them a lot along with a firm displeasure stating what he did was not liked.

Further when he indulged in hyperactivity and misbehaved with others technique of time out was used in which he was segregated from other children and not allowed to participate in the ongoing activity whatsoever it may be.

When he indulged into odd behaviours like laughing at self or laughing inappropriately the technique of ignoring was implemented. This technique was used as while taking his sessions and through observation. It was found by the researcher that he indulged in these behaviours in order to seek attention. So he was just ignored.

The child also showed fear about policeman which was resolved by the use of graduated exposure to fears technique. Here initially the child was shown the picture of a policemen then he was near a traffic signal in his vehicle and

showed as to how the traffic police helped regulate the traffic and he acts as a friend of public. Then the researcher went and talked with him while the child was in his vehicle and then after 2 weeks he was taken to the traffic police where after he talked with him and his fear gradually got resolved.

Here the results obtained were as expected the reason was that the child being older of 14 years of age and fell under mild category had better understanding and reasoning. So it became easier to implement the techniques. His scores came down from a 44 as the baseline till 35, 22 and 11 at respective quarters.

Case-15. Conveying displeasure, time out, reinforcement whenever the child misbehaved with others by pulling objects from others, making loud noise, making faces, being bossy the technique of conveying displeasure was used. When he indulged into hyperactivity and rebellious behaviours the technique of time out was implemented in which he was not allowed to take part in the dance sessions which he loved the most. In this he was made to stand in the class where other children were enjoying and even though he could see them he could not participate in the activity of dance. So slowly within a period of four months this behaviour got completely resolved. When he indulged into desirable behaviour privilege reinforcement technique was used in which he was allowed to participate in the dance sessions.

This is now from a score of 36 as the baseline his scores came down to 27, 15 and 7 respectively by the implementation of behaviour modification techniques. This implies its effectiveness.

Case-16. Conveying displeasure, response cost, reinforcement.

The child is a 15 years old child with mild mental retardation. So when he indulged into violent and destructive behaviours the technique of conveying displeasure was implemented. When he indulged in hyperactivity he had to part away with some amount of nasta which was the only thing which had an impact on him. But when he was cooperative, attentive and completed a task he was given a privilege reward of allowing him to sit near the window in the Maruti

van while going home. So because of this his scores from 24 reduced to 16, 10 and 4 respectively which is suggestive of the effectiveness of behaviour modification techniques implemented.

Case-17. Conveying displeasure graduated exposure to fears, reinforcement.

When the child indulged into misbehaving with others and odd behaviours the technique of conveying displeasure was implemented. Whenever he was cooperative and did not misbehave with others then privilege reward along with social reward was given. In this he was praised and he was given a privilege of going in the van to collect the children for one day which he enjoyed a lot. Conveying displeasure was implemented as he is a 16 years old child with mild mental retardation. Due to this his level of comprehension was found to be good and so he cooperated well when the modification techniques were implemented.

He was also found to be scared of saints who came for begging with long beards and typical clothes for this the technique of graduated exposure to fear was implemented and it took almost six months to resolve the problem behaviour. Due to implementation of these techniques the scores on BASIC-MR could be reduced from 20 to 15, 8 and 3 which shows the effectiveness of the techniques.

Case-18. Conveying displeasure, time out, physical restraint reinforcement.

She is a moderately affected child who had highest score on BASIC-MR for problem behaviours. She was found to be having violent and destructive behaviours for which conveying displeasure along with physical restraint was implemented. When ever she was calm, did not push, pinch, hit other then she was reinforced using primary rewards in which she was given a brand of biscuits which she liked the most. When she misbehaved with others then again technique of conveying displeasure was used.

To resolve her hyperactivity technique of timeout along with physical restraint was implemented where in she was not allowed to participate in the story session which she enjoyed a lot. Initially it so happened that because of time out

the hyperactivity increased for almost a month but consistency and firmness was maintained as a result of which here hyperactivity reduced slowly and after four months it could be resolved completely. Some technique was applied for her when she showed rebellious behaviour which got resolved after six months. Along with time out reinforcement was also used. So at the end of one year her baseline score of 58 got reduced to 43, 28 and 12 which shows the effectiveness of the techniques implemented.

Case-19. Conveying displeasure, physical restraint, time out, reinforcement.

When the child indulged into violent and destructive behaviour the technique of physical restraint and time out was implemented. When he misbehaved with others the technique of conveying displeasure was implemented but this technique was not very successful as the child being Tamil had difficulty in understanding Hindi as a result it was substituted by time out within a period of one month.

Here he was not allowed to participate in group games like musical chair which he enjoyed this technique worked well with him and along with this he was given privilege of taking part in group games whenever he did not misbehave with others. Similar techniques and procedure was applied when he was being hyperactive and rebellious.

As the parents were quiet cooperative and implemented the techniques at home, in spite of being irregular during the last three months due to illness his behaviour problems had reduced considerably and from a baseline score of 46 it come down to 33, 20 and 6.

Case-20. Conveying displeasure, reinforcement, Time out

She is a ten years old child who showed bossy nature, pulled things from others, made faces to tease others. So whenever she indulged into such misbehaviours the technique of conveying displeasure was implemented which worked well with her. Further when she was being hyperactive and rebellious the technique

of time out was applied. She is very much fond of sitting beside the teacher. So when she was being hyperactive and rebellious her place was changed and she was made to sit 3 to 4 seats away from the teacher. For her antisocial behaviour of making obscene gestures the technique of conveying displeasure was used. Along with this she was given privilege reinforcement in which she got the privilege of sitting next to the teacher.

This is how with the use of these modification techniques her baseline score of 30 got reduced to 22, 15 and 8 which implied its effectiveness.

Case-21. Physical restraint, Time out, Reinforcement

She is a child having moderate mental retardation with autism as its comorbid condition. She had violent and destructive behaviour, odd behaviour, hyperactivity and rebellious behaviours so the techniques of physical restraint, time out and reinforcement were implemented simultaneously. It was found that being an autistic child she did not prefer to have physical touch and so whenever physical restraint was used she reacted by screaming and crying excessively so it was stopped. Similarly when timeout was used and she was taken away from the activity she could not understand why she was segregated from rest of the group. So sitting in one corner she enjoyed staying in her own self. So even that was not effective. Similarly it was very difficult to give her the reinforcement as she did not show any preference, nor did her parents know about her likes nor was it judged from the reward preference checklist. As these techniques did not work not much change was observed in her whatever change was observed was due to her development I.e. due to maturation and what so ever learning. Due to this reason her score of 41 as the baseline just reduced to 39, 35 and 33. For this case the modification techniques were not effective.

Case-22. Conveying displeasure, physical restraint Reinforcement

When he indulged into violent and destructive behaviour, the technique of physical restraint was implemented where in his hands were firmly held when he indulged in hyperactive and rebellions behaviour conveying displeasure

along with reinforcement. The child is a moderately mentally affected child so for him the reinforcement given was primary, in which he was given bananas. So through the simultaneous use of these techniques the problem behaviours could be reduced from a baseline score of 38 to 30, 18 and 6 at different quarters. This proves the effectiveness of the techniques.

Case-23. Physical restraint conveying displeasure, Time out response cost, reinforcement, graduated exposure to fear.

The violent and destructive behaviours were managed by using physical restraint, conveying displeasure and response cost simultaneously when ever he indulged in this kind of behaviour a firm displeasure was conveyed and still further while using response cost, he had to part away with the stars which he had earned for his desirable behaviour.

It was also found that he showed fear for policeman. So the technique of graduated exposure to fear was implemented. When the researcher tried to find out as to why he got scared of a policeman, his mother said that his father was arrested by police as was convicted for some charges. So since then he had developed fear for a policeman.

Reinforcement technique along with time out was implemented for his hyperactive and rebellious behaviours. In timeout he was made to sit in one corner while others were engaged in any activity like crayoning, painting or clay modeling which he enjoyed. Due to the implementation of these techniques his baseline score of 36 came down to 29, 18 and finally to 5.

Case-24. Conveying displeasure and reinforcement

The child showed violent and destructive behaviours, hyperactivity and rebellious behaviour. But the frequency of occurrence and the intensity of problem behaviours were quite less. Due to this whenever the child indulged into these problem behaviours the technique of conveying displeasure was used. Along with this when he did not push others, pinch or hit others and when he was calm the technique of reinforcement was applied where in he was given a

social reward of praising him and giving star or a smiling face or an ice-cream. This is how his problem behaviours from a baseline of 24 got reduced to 19, 13 and 5.

Case-25. Conveying displeasure, Reinforcement, Graduated exposure to fears, Timeout.

He shows violent and destructive behaviour, misbehaves with others, odd behaviour, hyperactivity and fear of animals.

Initially when he indulged into violent and destructive behaviour or misbehaved with others, the technique a timeout was implemented. But it was found that when he was taken away from the activity, instead of feeling being punished, he enjoyed his segregation. Due to this his hyperactivity increased. So within a period of just twenty days this technique was stopped. Instead the technique of conveying displeasure did have an impact on him and when it was clubbed with primary reinforcement his problem behaviours of being violent and destructive and misbehaving with others got completely resolved.

Further whenever he indulged into hyperactive the same combination of techniques was implemented through BASIC-MR it was also found that he showed fear for monkey. So for this the technique of graduated exposure to fears was implemented and within a period of six months it could be resolved completely. So with a score of 43 as the baseline, it got reduced to 35, 21 and 7. This proves that even though the technique of timeout was not successful, other techniques combined together reduced his problem behaviours almost completely.

Case-26. Time out, reinforcement, conveying displeasure, response cost

When the child indulged in violent and destructive behaviour, the technique of conveying displeasure along with response cost was implemented. He had to part away with the red coloured tokens which he had earned while indulging

into desired behaviour. When ever he indulged in misbehaving with others the technique of conveying displeasure was used.

Further when he indulged in hyperactivity the technique of response cost was implemented. Here again he had to part with the red coloured tokens which he had earned when he was being calm and cool and did not indulge in any violent and destructive behaviours. When he was being rebellious he was given the technique of timeout along with conveying displeasure. In this technique of timeout he segregated from other children while during lunch time. So this is how with the use of these four techniques, from a baseline score of 47 for his problem behaviours it got reduced to 40, 28 and 11 successively for the three quarters respectively. This shows that the techniques used have been effective.

Case-27. Conveying displeasure, reinforcement, Timeout, Ignoring

When ever he indulged into violent and destructive behaviours the technique of timeout was implemented. In this he was made to stand in one corner of the classroom where from he could see and listen to the other children performing different activities like music, dance, art and craft. Similarly when he indulged in hyperactivity the same technique of timeout along with the technique of conveying displeasure was implemented. Because of the timeout technique his hyperactivity, violent and destructive behaviours got reduced and got resolved. Further while handling the child it was also observed that he did misbehave with others in the sense that he did not allow others to do work, made loud sounds or made faces then the technique of conveying displeasure was used and it yielded results as his misbehaviour reduced. During his problem behaviour of being rebellious it was observed by the researcher and by his parents observations it was found that he indulged in this behaviour when he wanted to seek attention from others. So for this problem behavior the technique of ignoring was used. Initially the problem behaviour increased but due to consistent use of the technique it got reduced. As a result of this the baseline score of 46 got reduced to 39, 24 and 8 respectively. Along with these techniques, reinforcement was used continuously.

Case-28. Ignoring, conveying displeasure, reinforcement

He showed odd behaviour and hyperactivity for which the techniques of ignoring, conveying displeasure along with reinforcement were implemented. Basically he is a mildly mentally retarded child, so when displeasure was conveyed for his hyperactivity he immediately would understand and try and be attentive and complete a task. When this behaviour of his was reinforced then it was like a booster for him and he would indulge into more of desirable behaviours. When he showed odd behaviours like laughing to self or laughing inappropriately then he was ignored as it was found that he did this just in order to seek attention from others. So ignoring was successful with him. Thus due to the implementation of these techniques, researcher was successful in reducing his baseline score of 16 to 13, 8 and finally 3. Further it could also be said that as his score on BASIC-MR was quiet less it became easier for the researcher to resolve his problem behaviours within a short period of just seven months.

Case-29. Physical restraint, conveying displeasure, reinforcement

He showed self injurious and odd behaviours for which the above mentioned techniques were used. When he indulged in self injurious behaviour like banging head then physical restraint by holding him firmly and conveying displeasure was used. Similarly when he indulged into odd behaviour like laughing inappropriately then a firm displeasure was conveyed due to which within a period of six months it was resolved. Along with this for him primary reinforcement in the form of any fruit was given. Due to this his baseline score of 33 got reduced to 28, 19 and 5 respectively during the three quarters. This shows the effectiveness of the techniques used.

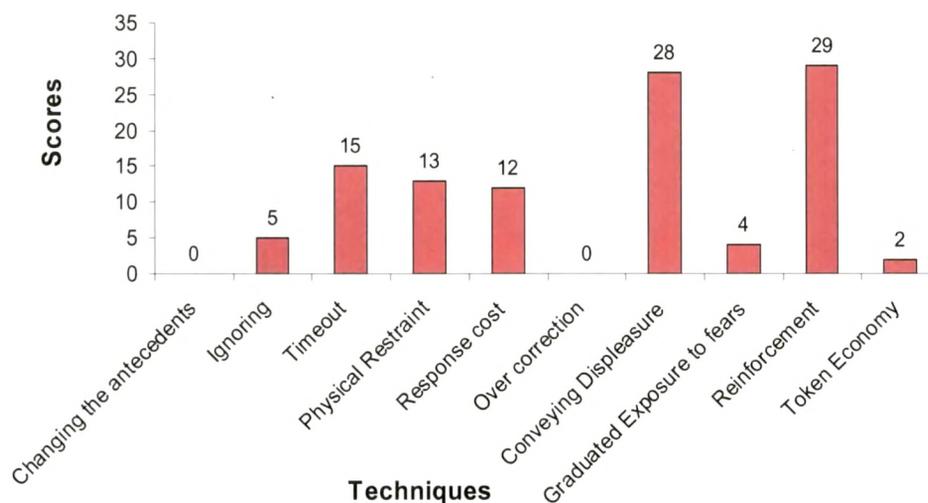
Case-30. Conveying displeasure, response cost, reinforcement

He showed violent and destructive behaviour for which along with conveying displeasure the technique of response cost was used wherein he had to part with the stars which were given to him as tokens for his desirable behaviour. Along

with this secondary reinforcement was given continuously. In secondary reinforcement he was given social reinforcement wherein praises like “good, shabash, excellent” were used. Due to the combination of these three techniques his baseline score came down from a mere 28 to 22, 15 and 7 respectively. This proves the effectiveness of the techniques used.

4.4.2 Discussion

After the techniques were implemented for reducing and resolving the problem behaviours the analysis and interpretation of these techniques was done in terms of its implementation with the children and its effectiveness for each child. This can be seen from the bar graph.



It was found that reinforcement technique has been effective with all the children comprising the sample except for one child. Further more it was also found that for young children that is till the age of eight years, primary reinforcement was more effective wherein they were reinforced by giving any eatable which they liked. Children older than eight years preferred secondary reinforcement in which apart from social reinforcement which included praising words, they also preferred privileges in the form of any activity like crayoning, painting, listening to music. It could also be interpreted that majority of the children (7 out of 10) having mild mental retardation showed preference for

secondary reinforcers rather than primary ones. Whereas children having moderate mental retardation had preference for primary reinforcers.

The selection of the reinforcers was done by observing the child (that is his likes and dislikes and his preferences shown during the class activities), directly by asking them, asking their parents, siblings or teachers concerned. After all this if the preference was not judged by the researcher then the reward preference check list was used. Thus it could be stated that mostly primary rewards were effective for younger children and for children having moderate mental retardation. While secondary rewards were used and were effective for older children and for those having mild degree of mental retardation. Overall whether the reinforcement was primary or secondary, it was the most effective technique to reduce and resolve problem behaviours in children having mental retardation.

The other technique which was implemented upon majority of the children (twenty eight) in terms of its effectiveness for resolving the problem behaviours was conveying displeasure. Here while implementing this technique it was found that even though children having mental retardation have lower intelligence quotient as compared to their normal counter parts, they did possess the potentiality to know when and for what reason displeasure was conveyed. So due to this, no doubt the results obtained through this technique were slower, the problem behaviours got completely resolved at the long run and it was more effective with the older children and with those having mild mental retardation as their comprehension was better than children having moderate mental retardation. Thus whether the child is having mild or moderate mental retardation, this technique of conveying displeasure was quite effective in reducing and resolving the problem behaviours.

Similarly timeout technique was also effective with the older children and with those having mild retardation. The reason found was that children having moderate retardation had difficulty in comprehending as to why they were segregated from their fellow mates or were not allowed to perform any

particular activity and they could not relate its importance. Considering this it was applied to only fifteen children comprising the sample for the study. For these fifteen children it has been very effective in reducing and resolving their problem behaviours especially with children having violent and destructive behaviours, hyperactivity and misbehaving with others.

Physical restraint was the technique which was more effective with children having violent and destructive behaviours and with hyperactivity as through this technique their physical movements were restricted. As a result of which it got reduced and slowly got resolved.

Even though response cost was implemented upon twelve children, its effectiveness was not as much as reinforcement and conveying displeasure. The reason was that these children had difficulties in understanding as to why he had to pay a fine or part away with the thing which they liked or which they had earned as tokens while indulging into desirable behaviours. This technique was also much effective with the older children and with those having mild mental retardation.

While using the technique of ignoring it was noted that during the initial stages that is for four to five days the problem behaviours in children increased.

But than gradually they got decreased and finally got resolved. One major constraint found while using this technique was that it was implemented only when the behaviours shown by the child were that of seeking attention. It became very difficult for the researcher to decide which behaviours were just for seeking attention and which were because of some other causes. Further this technique was strictly not applicable with those behaviours which were harmful to self or to others that is it was not useful and implemented for behaviours like self injurious behaviours, violent and destructive behaviours, hyperactivity, anti social behaviours and for fears. It was mainly used when the child indulged in some kind of odd behaviours especially like talking to self, laughing to self and laughing inappropriately.

For those children having fears of any kind, graduated exposure to fears was the most effective technique which gave very good results and the problem behaviours could be reduced to a very large extent.

Two techniques of changing the antecedents that is changing the cause of the problem behaviours and over correction could not be used with the children for the present study. Extinction as a technique was implemented with all the children for the study as it involved gradual decrease in use of techniques as and when the child indulged into desirable behaviours and finally the use of other techniques was completely stopped when the problem behaviour had resolved completely.

Further it could also be analyzed that all these techniques were used in combination of one or more than one other techniques in order to obtain desirable change in the problem behaviours of the children. Any one technique was not used for complete resolution of the problem behaviours.

The implementation could be possible only with the support and cooperation of the parents. It was because of their sincere efforts and regular follow ups that the problem behaviours in their children could be resolved. Had the parents not being regular and sincere in their follow ups and cooperative in implementing the techniques, the desired change could not have been possible.

Even the scores obtained by assessing the child every three months on BASIC-MR are also suggestive that the techniques which were implemented have been effective in reducing and resolving the problem behaviours in the children with mental retardation.

This being a longitudinal study, the children were observed for a whole year while the techniques were being implemented and their effectiveness was studied. Apart from this actual study the children were also observed till December 2007 and the changes and the occurrence of problem behaviours were studied. During this observation and follow up period it was found that there was no increase in the other problem behaviours. The problem behaviours

which were observed at the end of the third quarter were maintained and there was no increase in the occurrence of the already existing problem behaviours. As a result of this the child became more functional and participative.

4.4.3 MAJOR FINDINGS-

No single modification technique was effective with the children. They were used in combinations of one another.

The use of the techniques also depended upon the intensity and frequency of the occurrence of problem behaviours.

Reinforcement when combined with other techniques was very effective. The other techniques which were implemented were mostly aversive techniques that were sort of punishment techniques. But these techniques were found to be very effective with the sample for the study.

The scores obtained at the end of the third quarter were suggestive of the effectiveness of the techniques.

The effectiveness of the techniques also depended upon the age, the mental levels and the intelligence quotients of the children.

Parents' cooperation, regularity and sincerity in implementing the techniques also had an impact on its effectiveness and the change observed in the children.

Section-5

Case Studies

5.0 In a case study, a case is studied in depth. It seeks to assemble and interpret all the relevant facts and observations about a given individual. Six case studies are presented here. The profile of the cases are presented with regard to their birth history and background information, problem behaviours as identified on BASIC MR, the techniques applied, the developmental process, the effectiveness of the applied behaviour techniques and the changes observed in the child.

5.1 Cases

Case-1

GENERAL / DEMOGRAPHIC INFORMATION

The only child of his parents he is 5 years 6 months old with a mental age of 4 years 3 months and has been diagnosed as having mild mental retardation with cerebral palsy as its comorbid condition.

BIRTH HISTORY AND BACKGROUND INFORMATION

He has been a premature (7½ months) normal delivered child with severe birth asphyxia, he suffered from jaundice immediately after birth and all his milestones have been reported to be delayed.

His mother too had jaundice at 7th month of pregnancy and suffered from high blood pressure throughout 9 months, she had an elder daughter who expired at 8½ months after birth due to some complications. Even though he faced problems in walking, at present he attends KG section of an English Medium school for 2 hours and rest of the time he attends special therapy sessions at ARPAN.

His general behavioural observations finds him to be very slow at all physical activities, shy and introvert, does not initiate a talk.

BEHAVIOURAL PROBLEMS ON BASIC – MR.

(1) Violent and destructive behaviour

- Pushes others
- Throws objects at others
- Pinches others
- Breaks objects
- Hits others

(2) Temper Tantrums

- Cries excessively
- Screams

(3) Self Injurious behaviours

- Bangs head
- Bites self
- Cuts or mutilates self
- Hits self

(4) Repetitive behaviour

- Rocks Body
- Makes peculiar sounds
- Grinds Teeth

(5) Odd behaviour

- Talks to self

(6) Rebellious behaviour

- takes very long time intentionally to complete a task.

Total score obtained is 35.

MODIFICATION TECHNIQUES IMPLEMENTED

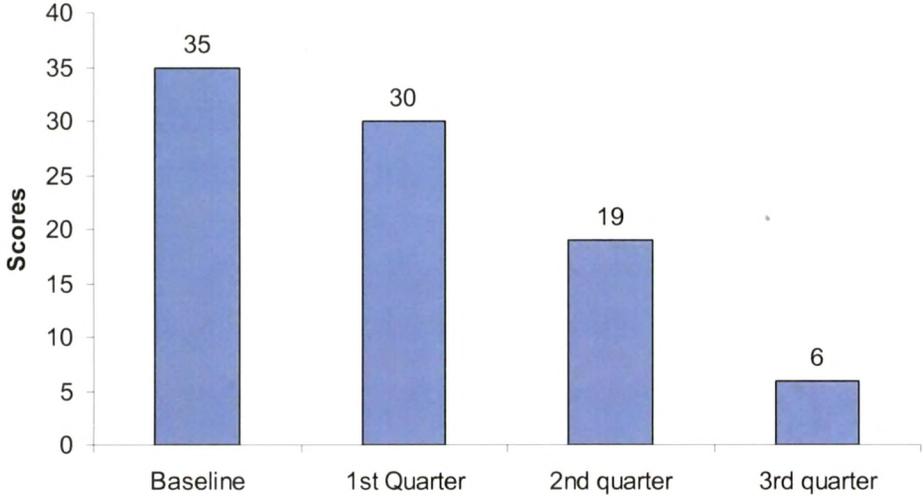
The main techniques applied on this child were Reinforcement, conveying displeasure, physical restraint time out.

DEVELOPMENTAL PROGRESS

During the implementation of the behaviour modification techniques, all the problem behaviours were taken together and it was noted that for this child problem behaviour of taking very long time intentionally to complete a task and talking to self were resolved first within 2 months time with the use of reinforcement and conveying displeasure techniques but it was found difficult to resolve self injurious and repetitive behaviour and it took almost 7 months to

performance has improved. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



CASE – 2

DEMOGRAPHIC INFORMATION

She comes from a family of five with an elder sister and a younger brother along with her parents. Her elder sister has been adopted by her paternal aunt so now they are only four members in the family. She is 12 years old with a mental age of 4 years 7 months and an IQ of 39. She has been diagnosed as having Downs Syndrome a genetic condition with moderate mental retardation and speech impairment.

BIRTH HISTORY AND BACK GROUND INFORMATION

She has been a full term normal delivered child with severe birth asphyxia (cried after 2 days) so was kept in an incubator for a day. She suffered from very high fever at the age of four years so was hospitalized then. All her milestones have been reported to be delayed. At present she has attained her physical and motor milestones but cognitive and speech milestones still remains impaired.

Her mother was absolutely healthy throughout the nine months but the child's maternal uncle's grand son is a Downs Syndrome child. At present she is attending special school at Arpan and also avails speech therapy twice a week. In the class she copies what is given shows dominance over other children by dictating them what to do and what not to do seeks attention of the teacher by constantly calling her or pulling her clothes.

BEHAVIOURAL PROBLEMS ON BASIC – MR

(1) Violent and destructive behaviour –

- Throws objects at others
- Breaks objects / glass / toys

(2) Misbehaves with others –

- Pulls objects from others
- Interrupts in between when others are talking
- Makes face to tease others
- Tells others what to do and wants her way (bossy)

(3) Repetitive behaviour

- Nods Head
- Makes peculiar sounds

(4) Hyperactivity

- Does not sit at one place for required time
- Does not pay attention to what is told
- Does not continue with the task at hand for required time

(5) Rebellious behaviour

- Refuses to obey commands
- Does opposite of what is requested
- Takes very long time intentionally to complete a task
- Wanders outside school

(6) Antisocial behaviour –

- Makes obscene gestures
- Makes sexual advances towards members of opposite sex

MODIFICATION TECHNIQUES IMPLEMENTED

The main techniques applied on this child were Reinforcement, Conveying Displeasure, Time out.

DEVELOPMENTAL PROGRESS

During the implementation of behaviour modification techniques, problem behaviours like violent and destructive behaviours, misbehaves with others and Anti Social behaviours were given priority as they demanded immediate attention. The problem behaviours – make obscene gestures and making sexual advances towards members of opposite sex were modified within 1½ months time using conveying displeasure technique. Misbehaving with others and violent and destructive behaviours took longer. Up to 8 months to be resolved by using reinforcement and time out techniques.

For this the family support was also taken. During the whole process it was observed that mother was quiet cooperative and implemented what ever was asked but her father was least cooperative and had a feeling of wastage of time

as according to him not much change can be observed in her. Because of his non cooperative nature the child took long time for the resolution of the problem behaviours. She has been very regular at attending the special school and behaviour modification session so it was felt that what ever changes have been observed in her were due to her regularity at the centre. Had the researcher got proper support from both the parents then the process of modification would have been faster.

FINAL EVALUATION AFTER ONE YEAR

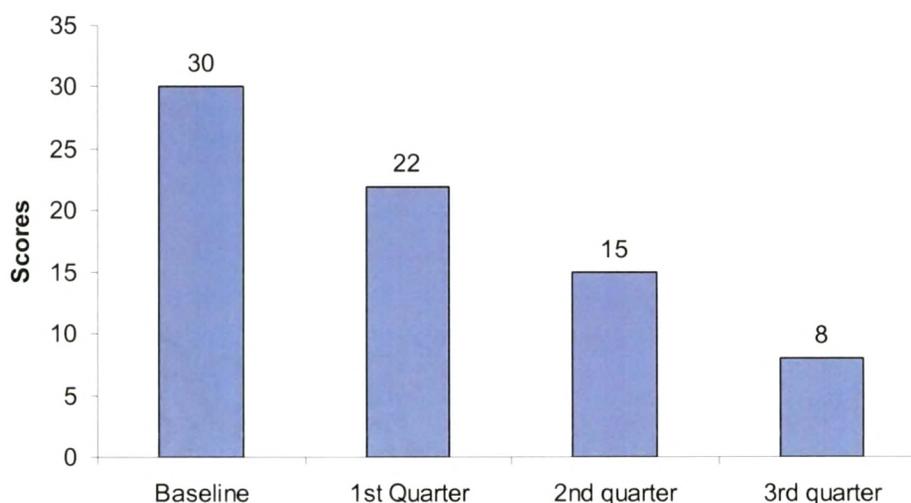
After the implementation of behaviour modification techniques for one whole year, the researcher was successful in modifying the following behaviour problems completely.

- (1) Violent and Destructive behaviour –
 - Throws objects at others
 - Breaks objects / glass / toys
- (2) M.sbehaves with others –
 - pulls objects from others
 - makes face to tease others
- (3) Repetitive behaviour –
 - Nods head
 - Makes peculiar sounds
- (4) Hyperactivity –
 - Does not sit at one place for required time
 - Does not pay attention to what is told
 - Does not continue with task at hand for required time
- (5) Rebellious behaviour –
 - Refuses to obey commands
 - Does opposite of what is requested
 - Takes very long time intentionally to complete a task
 - Wanders outside school
- (6) Anti social behaviour –
 - Make obscene gestures
 - Makes sexual advances towards members of opposite sex

Total score obtained at the end – from a baseline of 30 to 22 – 1st quarter, 15 – 2nd quarter and at the end – 8.

So from this it can be said that the modification techniques have been successfully implemented but complete resolution of the problem behaviours could not be possible as there was very little or no support from all the family members, it became difficult to resolve all the problems. Also as she is in her adolescent period few of the problem behaviours like being rebellious were very difficult to resolve. As a whole due to the resolution of the behaviour problems, she became accepted by all the children of her class, teachers started attending her and she was also made to participate in co-curricular activities. The major happening in her life was the acceptance on the part of her father. The person who initially was not ready to accept that any change could be observed in her, now accepted the fact. As a result his attitude towards her changed. He became more concerned and caring towards her and also motivated his son to look after his elder sister. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



CASE-3

DEMOGRAPHIC DATA

The only child of her parents, she is 10 years old with a mental age of 4 years 2 months having being diagnosed as having moderate mental retardation with Autism. Autism is a neurological disorder in which the child's social and speech milestones are impaired ranging from mild to severe category Cognition may or may not be affected.

BIRTH HISTORY AND BACKGROUND INFORMATION

She was full term normal delivered child born to her mother at a later age (34 years). Her mother had bleeding at 1½ months of pregnancy which continued for rest of the period. The child suffered from high grade fever on 2nd day after birth. Her motor milestones have been reported to be normal but speech and cognition were delayed which still remains impaired. At present she does not speak anything, just produces some sounds as if babbling. She has undergone treatment for hyperactivity from a neuro-physician which was stopped by the parents within 6 months period because of other side effects like always remaining in trance, not having proper food etc. she was assessed on CARS (A standardized test for Autism) and was confirmed as having autism at the age of 4½ years.

At present she is attending Arpan special school since last 4 years but as far as her IQ is concerned no remarkable improvement is observed in her. In the class she is found to be very restless, gets distracted easily, is hyperactive, pulls hair of self and others, is very stubborn cries unnecessarily having attention span of 5-6 mins.

BEHAVIOURAL PROBLEMS ON BASIC MR –

(1) Violent and Destructive Behaviour –

- Pulls hair, ear, body parts of others
- Tears/pulls threads from own or others clothing
- Tears up own or others books, papers, magazines

- (2) Temper Tantrums –
 - Cries excessively
 - Screams
- (3) Misbehaves with others –
 - Pulls objects from others
 - Takes others possessions without their permission
- (4) Self Injurious Behaviour –
 - Pulls own hair
- (5) Repetitive Behaviours –
 - Rocks body
 - Nods head
 - Makes peculiar sounds
 - Shakes parts of the body repeatedly
- (6) Odd Behaviours –
 - Laughs inappropriately
 - Hoards unwanted objects – books
 - Smells objects
- (7) Hyperactivity
 - Does not sit at one place for required time
 - Does not pay attention to what is told
 - Does not continue with the task at hand for required time
 - Wanders outside school / classroom

MODIFICATION TECHNIQUES IMPLEMENTED –

The main techniques applied for this child were Reinforcement, conveying displeasure, physical Restraint along with sensory Integration (an integrative technique used especially for children having autism).

DEVELOPMENTAL PROCESS –

With this child, the implementation of the behaviour modification techniques started with giving sensory Integration therapy so as to clam her down. The researcher made more use of physical Restraint and conveying displeasure techniques. For her priority was given to self Injurious behaviours, temper

Tantrums and hyperactivity as these were more harmful problem behaviours. With the maximum use of physical restraint and conveying displeasure the problem behaviours of crying excessively, screaming, pulling hair, not sitting at one place, wandering outside the classroom, not paying attention to what is told started getting resolved within first 3 months of implementation.

The other behaviours like repetitive and odd behaviours did reduce but took longer time. The reason may be all these behaviours are the major characteristics of children having autism so it was much difficult to modify or resolve them.

Her parents have been very cooperative through out the implementation programme. They would do everything at home that was told to them, so due to this in spite of having autism as a comorbid condition with mental retardation, what so ever but improvement was observed in the child. The technique of reinforcement was used with the child but it was not as successful as physical restraint and conveying displeasure. The reason was that as the child is autistic the researcher and the parents were unable to decide upon the reinforcers for the child any by using the reinforcement checklist through trial and error only some conclusions were drawn.

FINAL EVALUATION AFTER ONE YEAR

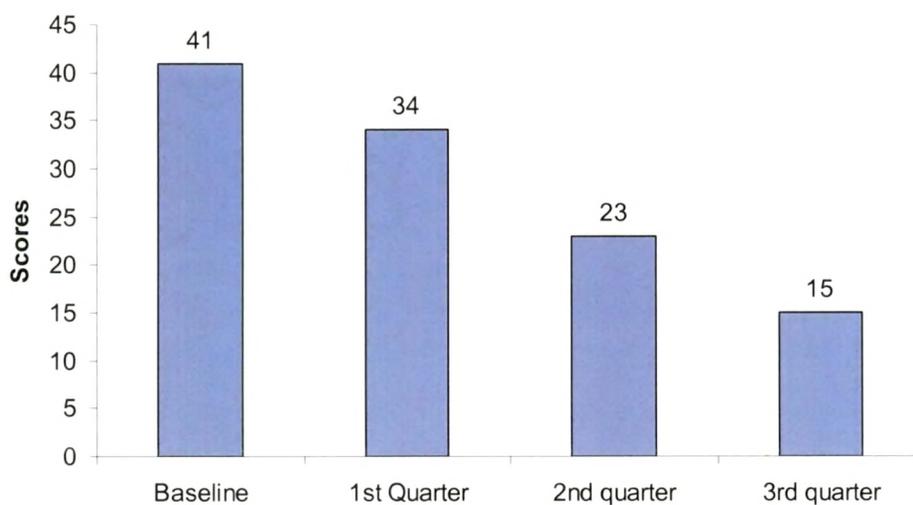
After the implementation of the three techniques the following behaviour problems could be modified completely by the researcher.

- (1) Violent and Destructive Behaviour
 - pulls hair, ear, body parts of others
 - Tears up own or others books, papers, magazines
- (2) Temper Tantrums
 - cries excessively
- (3) Self Injurious behaviours
 - pulls own hair
- (4) Repetitive Behaviours –
 - Rocks body

- Nods head
 - Shakes parts of the body
- (5) Hyperactivity –
- Wanders outside school / classroom.

The other behaviours under different domains could be modified to some extent. The score obtained at the beginning was 41 and then gradually for 1st, 2nd and 3rd quarters were 34, 23 and 15 respectively which is suggestive of partial resolution or modification of the problem behaviours. But in spite of partial modification of behaviour problems, it was found that her eye to eye and eye to object contact had increased. She started sitting at one place, wandering outside the class room had completely resolved as a result she became participative in the classroom, her gestural expressions increased. She started showing emotions like likes and dislikes, anger, other children started accepting her as a classmate she started playing with the toys and her constructive presence was noted by the teachers. Her parents, who had lost hope about her progress, developed a positive attitude towards her and now started taking her out in gatherings, in garden or other public places. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



CASE-4

DEMOGRAPHIC DATA

The only child of her parents born at a very late age (38 years), she is a 15 years old female with a mental age of 5 years 4 months having being diagnosed as having moderate mental retardation with cerebral palsy. Cerebral palsy is a physical condition which restricts the mobility of the individual and which occurs since birth due to neurological dysfunction.

BIRTH HISTORY AND BACKGROUND INFORMATION

She has been a pre-term (8th month) normal delivered child with immediate birth cry and low birth weight. She suffered from neonatal jaundice on 2nd day after birth, she was transferred to an incubator immediately after 2 hours of birth where she remained for 30 days, and she also had convulsive attacks 5-6 times a day for 2-3 minutes which lasted almost for a month. All her milestones are delayed and at present she has attained only sitting and other locomotion functions still remains impaired. Her speech and cognition are also affected.

As for her family history, her father has cleft palate with a deep cut on the upper lip since birth due to which he has nasal voice with unclear speech. Her mother suffers from poliomyelitis.

At present she is attending Arpan special school where she is enrolled in a special class for cerebral palsy children. In the class she seeks attention of the teacher by calling out, is found to be very choosy about her sitting position, she can read and write what is given but takes long time to accomplish it.

BEHAVIOURAL PROBLEM ON BASIC MR –

- (1) Temper tantrums
 - cries excessively
 - screams
- (2) Misbehaves with others
 - Interrupts in between when others are talking
- (3) Self Injurious behaviours
 - Bites self

- Cuts or mutilates self
 - Pulls own hair
 - Hits self
 - Scratches self
- (4) Repetitive behaviours
- makes peculiar sounds
- (5) Odd behaviours
- laughs to self
 - laughs inappropriately
- (6) Hyperactivity
- Does not pay attention to what is told
- (7) Rebellious behaviours
- Takes very long time intentionally to complete a task

MODIFICATION TECHNIQUES IMPLEMENTED

The main techniques applied for her were reinforcement, conveying displeasure, Time out, Ignoring.

DEVELOPMENTAL PROGRESS

Throughout the process of implementation, the self Injurious behaviours were given priority and through the use of aversive techniques like time out, conveying displeasure, they were tried to be resolved and positive results were found during the 1st month itself and two of the self injurious problem behaviours – Bites self and cuts or mutilates self were completely resolved.

Other problem behaviours of throwing temper tantrums by crying excessively and screaming were completely resolved within a period of three months by using ignoring and conveying displeasure techniques. For this even parents support was taken and they too cooperated willingly. Her odd behaviours of laughs to self and laughs inappropriately could not be resolved completely in spite of using all the techniques. For these behaviours, reinforcement technique was used but these behaviours reduced for time being only then it got relapsed. Even her parents could not help for these problem behaviours, her hyperactivity

was reduced using conveying displeasure technique and at the end of one whole year it got completely resolved. Now she has become very alert and she pays attention to what is told, her rest of the self injurious behaviours were completely resolved at the end of the year. The frequency of making peculiar sounds got reduced from eight times in one hour to just three times in an hour.

For her mostly aversive techniques were successful for the resolution of problem behaviours and the reinforcement used was the secondary reinforcement which was successful with her especially for her rebellious behaviours.

FINAL EVALUATION AFTER ONE YEAR –

After the implementation of the above mentioned techniques the following problem behaviours were completely modified by the researcher –

(1) Temper tantrums

- crying excessively
- screams
- rolls on floor

(2) Self Injurious Behaviours

- pulls own hair
- scratches self
- hits self
- puts objects into eyes/nose/ear
- peels skin

(3) Repetitive behaviours

- Making peculiar sounds – resolved partially.

(4) Odd behaviours

- laughs to self – resolved partially
- laughs inappropriately – resolved partially

(5) Hyperactivity

- Does not pay attention to what is told

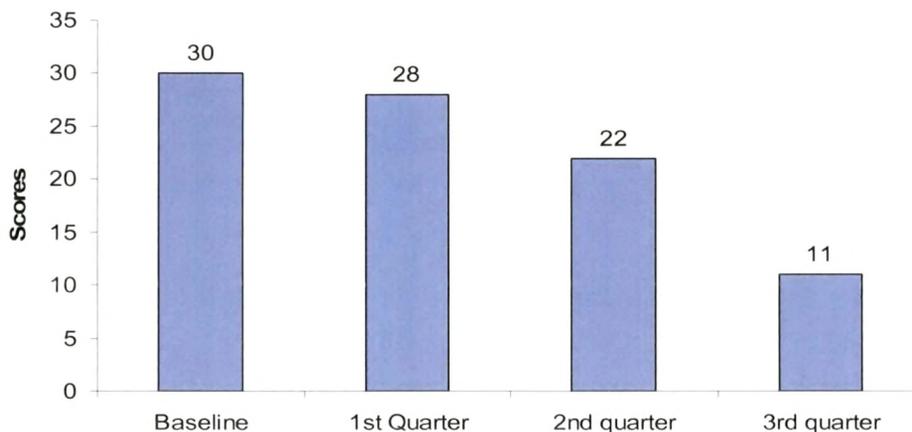
(6) Rebellious behaviours –

- Takes very long intentionally to complete a task

The other problem behaviours could be modified partially. The scores obtained at the current level and than during successive quarters reveal that there has been a decrease in problem behaviours in this child which implies that the modification techniques used have been successful to a very great extent. The scores obtained are 30 at the current level and then 28, 22 and 11 at the respective quarters.

Due to these changes in her scores, behaviourally she was found to be quiet mature as throwing of tantrums had completely resolved, her misbehaviour with others had reduced as a result of which she started being accepted by others in her class of other special children. Socially also her parents started taking her out more frequently and visited their relatives. They also started accepting her and the interaction between her and other individuals increased so she became more communicative. As her hyperactivity reduced, she became more attentive in the class, would listen to what her teacher told, as a result her overall academic performance improved irrespective of the change in her. Intelligence Quotient. Her reasoning improved and she started thinking more from concrete to abstract concepts. Her self confidence boosted as a result she took part in Gita shlok recitation competition and bagged a special prize for her performance. The some timid restless and hyperactive female with lot many behaviour problems got transformed into a matured being due to the implementation of behaviour management techniques. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



CASE – 5

DEMOGRAPHIC DATA

The only son after four daughters, he is a 12 years old male with a mental age of 5 years 2 months having being diagnosed as having moderate mental retardation with speech Impairment.

BIRTH HISTORY AND BACKGROUND INFORMATION

He has been a full term normal delivered child with immediate birth cry. Till 3 months he was developing normally but at 3 months he had first convulsive attacks due to high fever so was hospitalized. Then again had convulsions at 6 months and 3 years of age but now has stopped. All his physical, motor, cognitive, social and speech milestones have been reported to be delayed. At present he has attained motor physical and social milestones. Speech and cognitive still remains impaired.

As far as his family history is concerned, his fourth sister is a slow learner otherwise rest of the family members are absolutely physically and mentally healthy.

At present he is attending Arpan special school where he is learning functional academics like writing his name, address, phone number, learning time and money concepts. He is very active and at times in absence of his teacher he can manage the class, he also can give proper messages to the respective persons. But is found to be quiet restless, hyperactive and gets distracted easily. He does not like writing and so finishes off quiet fast making lot many mistakes.

Before seeking admission in Arpan special school he used to attend std. 2 in a Gujarati medium school. There his academic performance was too low, showed hyperactivity and speech problems. So the school authorities issued him a school leaving certificate.

BEHAVIOURAL PROBLEMS ON BASIC MR –

(1) Violent and Destructive Behaviour –

– Kicks others

– Bangs objects

- Pushes others
- Throws objects at others
- slaps others
- Tears or pulls threads from own or others clothing
- Tears up own or others books, papers
- (2) Temper Tantrums –
 - Screams
- (3) Misbehaves with others –
 - pulls objects from others
 - makes face to tease others
 - interrupts in between when others are talking
 - makes loud noises when others are working or reading
 - use abusive language
 - Takes others possessions without their permission
 - Tells others what to do.
- (4) Repetitive behaviours –
 - Makes peculiar sounds
 - Bites ends of pencil
- (5) Odd behaviours –
 - laughs inappropriately
- (6) Hyperactivity
 - Does not sit at one place for required time
 - Does not pay attention to what is told
 - Does not continue with the task at hand for required time
- (7) Rebellious behaviours –
 - Refuses to obey commands
 - Does opposite of what is required
 - Wanders outside school

MODIFICATION TECHNIQUES IMPLEMENTED

The modification techniques applied for him were reinforcement, time out, conveying displeasure response cost.

DEVELOPMENTAL PROCESS

For this child the initial focus was on violent and destructive behaviour and misbehaves with others. The reason behind this was these two problem

behaviours had the most interfering effects on his learning. Misbehaving with others interrupted the learning process of others. For these problem behaviours the modification techniques of conveying displeasure, Time out and reinforcement was implemented simultaneously. So the results obtained were very fast and satisfying. Within a period of four months these two categories of problem behaviours were mostly completely resolved.

The problem behaviour of hyperactivity was taken up next and the technique of time out, response cost and reinforcement was implemented with him. In this technique of response cost he was made to part away with the stars or objects which he had earned as tokens for his desirable behaviours. This had a tremendous effect on him and he tried his level best not to part away with those earned tokens. So because of this, his problem behaviour of hyperactivity could be resolved very soon within a period of one month. His parents also supported the researcher with the implementation of this technique so it became still more easier and a child who could not sit at one place for more than ten minutes started sitting for thirty to forty minutes, got himself more engaged in activity and would complete any given activity within the required time.

His rebelliousness was also resolved by using techniques of reinforcement and conveying displeasure with him the secondary reinforcement was more effective. Especially social reinforcement was very effective in which he was given privilege of becoming the monitor of the class, helping and supporting children who needed physical prompt. It was found that he showed much care and concern and within a time period of six months this problem behaviour could be resolved.

FINAL EVALUATION AFTER ONE YEAR

After the implementation of the above mentioned techniques, the following problem behaviours were completely modified by the researcher –

(1) Violent and Destructive behaviours –

- | | |
|-----------------|----------------------------|
| – kicks others | – pinches others |
| – pushes others | – slaps others |
| – bangs objects | – throws objects at others |

- (2) Temper Tantrums
 - screams
- (3) Misbehaves with others –
 - uses abusive language
 - Tells others what to do
- (4) Repetitive behaviours
 - Bites end of pencil
- (5) Odd behaviours
 - laughs inappropriately
- (6) Hyperactivity
 - Does not pay attention to what is told
 - Does not continue with the task at hand for required time
- (7) Rebellious behaviours –
 - Refuses to obey commands
 - Does opposite of what is requested
 - Wanders outside school

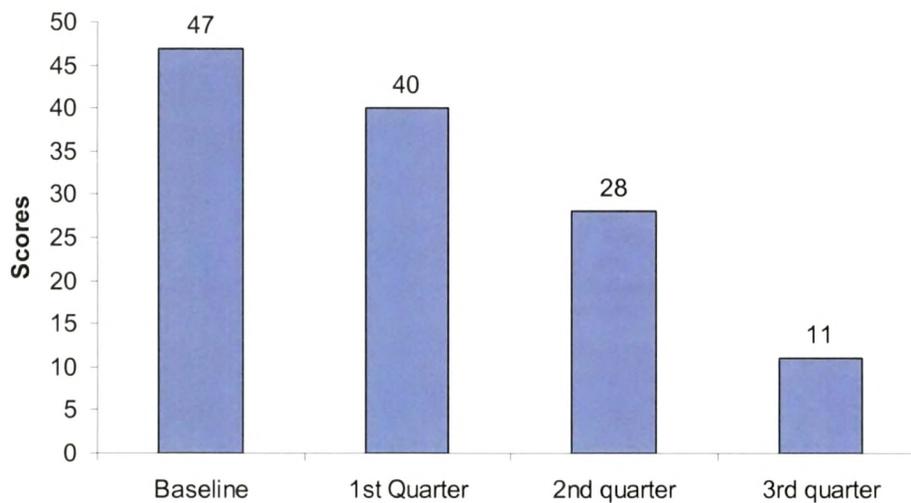
The above mentioned problem behaviours were completely modified and resolved where as the other problem behaviours were partially modified. The scores obtained at the end of each quarters also revealed that there has been an improvement in this child as far as his problem behaviours are concerned. The scores obtained were as follows – 47 was the score obtained as the baseline that is at the starting of the implementation then gradually at the end of each quarters the scores obtained were 40, 28 and 11 respectively which implies that the modification techniques applied with him have helped to a great extent in resolving his problem behaviors.

Due to these changes in his scores, as his hyperactivity had reduced, he was accepted by other students of his class, his concentration increased due to which his classroom performance also improved, a marked change was observed in his intelligence quotient. Teachers also started accepting him and paying more attention towards him. His parents who used to neglect him now started being more attentive towards him. As they observed change in him, they started taking

interest in him and visited the researcher twice for further plan of action and after they were counseled they implemented upon it. Due to which more progress was observed in the child. The teachers at ARPAN he also started the training of pre-vocational skills like teaching of money concepts and other functional skills so as to prepare him for his journey towards self reliance.

His father being a vendor (sells eatable items) started involving him as far as money concept was concerned this way this child started getting integrated not only in the special school, home but also in the society. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



CASE – 6

DEMOGRAPHIC DATA

He comes from a family of four with an elder sister and his parents. He is a 14 years old Downs Syndrome child with moderate mental retardation and speech impairment. His mental age ranges between 5½ - 6 years with the Intelligence Quotient of 47.

BIRTH HISTORY AND BACKGROUND INFORMATION

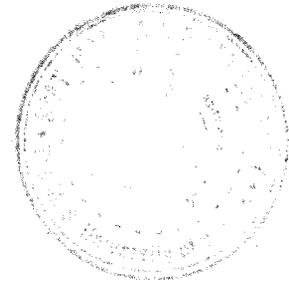
He was a preterm (8th months) normal delivered child with birth asphyxia (cried after 10 mins). All his motor mental social and speech milestones have been reported to be delayed. At present he has attained his physical and motor milestones but cognitive, social and speech milestones still remains affected.

He has an elder sister who is absolutely normal and healthy and is availing university education at present.

At present he is attending Arpan special school where he is learning functional academics like number, money, time concepts along with the pre-vocational skills. He is also being taught language skills where in he is made to write his address and telephone numbers. In prevocational skills he is taught cutting, pasting, stacking and punching. In the classroom he does not listen to the instructions of the teacher, does not pay attention to what is being told, wanders outside the classroom with one reason or the other. He is also found to be quiet restless, gets distracted easily. So he has problems in completing any task. He takes part in sports events organized for special children at local, district, state and national levels. He also is a very good dancer. He takes training in dancing from a dance academy and has won many prizes for his performances.

BEHAVIOURAL PROBLEMS ON BASIC MR –

- (1) Violent and destructive behaviours
 - Breaks objects / toys
- (2) Misbehaves with others
 - Pulls objects from others
 - Makes loud noise when others are working or reading



- Makes face to tease others
 - Takes others possession without their permission.
- (3) Self Injurious behaviours –
- Scratches self
- (4) Repetitive behaviours
- Nods head
 - Makes peculiar sounds
 - Bites ends of pencil
- (5) Add behaviours
- Hoards unwanted objects
 - Kisses, hugs and licks people unnecessarily
 - Smells objects
- (6) Hyperactivity
- Does not sit at one place for required time
 - Does not pay attention to what is told
 - Does not continue with the task at hand for required time
- (7) Rebellions behaviours
- Refuses to obey commands
 - Does opposite of what is requested
- (8) Anti social behaviours –
- Makes obscene gestures
 - Makes sexual advances towards members of opposite sex

MODIFICATION TECHNIQUES IMPLEMENTED

The modification techniques applied for him were reinforcement, time out, ignoring, conveying displeasure and response cost.

DEVELOPMENTAL PROCESS –

For this child the initial focus was on Anti-social behaviours, odd behaviours and misbehaves with others. The reason behind this was that these three problem behaviours were the most interfering behaviours for the child as well as for others:

Due to the Anti social behaviours he was neglected by others. Instead of integrating him in a group he was segregated by his class mates, teachers and others in the society. For this reason this problem behaviour was given the priority. To modify or resolve this problem behaviour conveying displeasure and response cost techniques were used. Here the parents help was also taken. Whenever he made obscene gestures or sexual advancement displeasure was conveyed both by the researcher as well as his parents and sister. Simultaneously when ever he showed desirable behaviour he was reinforced socially that is by using reinforcing words.

Odd behaviours were modified by using response cost technique whenever he hoarded objects, kissed, hugged or licked people he was made to part from the most liked thing. His parents also helped while implementing this technique. Thus this being an aversive technique and implemented righteously with the cooperation of his parents the results obtained was quiet fast. Within 4 months of implementation the results were obtained.

Then the priority was given to misbehaves with others and upper activity. For these two categories of problem behaviours ignoring, time out and reinforcement techniques were used and the researcher started obtaining results within 7 months and at the end of 8th month these problem behaviours were completely resolved. The other behaviours were then taken and could be resolved gradually by the end of the last quarter.

FINAL EVALUATION AFTER ONE YEAR

After the implementation of the above mentioned techniques, the following problem behaviours were completely resolved and modified by the researcher.

- (1) Violent and Destructive behaviours --
 - Breaks objects / toys
- (2) Misbehave, with others –
 - Pulls objects from others
 - Makes loud noise when others are working or reading
 - Takes others possession without their permission

- (3) Self Injurious behaviours –
 - Scratches self
- (4) Repetitive behaviours –
 - Nods head
 - Bites ends of pencil
- (5) Odd behaviours –
 - Hoards unwanted objects
 - Smells objects
- (6) Hyperactivity
 - Does not sit at one place for required time
 - Does not pay attention to what is told
 - Does not continue with the task at hand for required time
- (7) Rebellious behaviours
 - Refuses to obey commands
- (8) Anti social behaviours
 - Makes obscene gesture
 - Makes sexual advances towards members of opposite sex

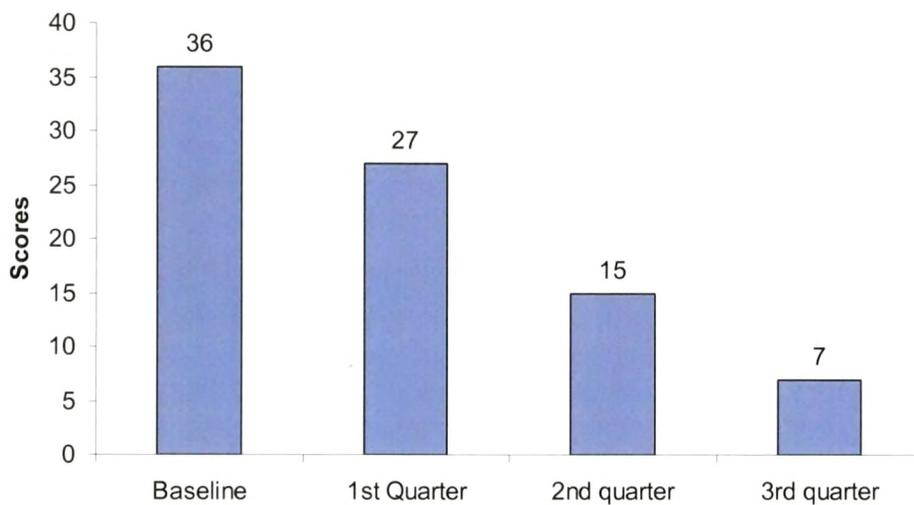
The above mentioned problem behaviours were completely resolved where as the other behaviour problems were partially resolved. The scores obtained from the baseline level till the last quarters are also suggestive of marked and desirable change in the behaviour problems. The scores obtained were 36 at the baseline level to 27, 15 and 7 in the 1st, 2nd and 3rd quarters these scores shows that there has been a marked decrease in the undesirable behaviour and remarkable increase in desirable behaviour.

This was possible only due to the support of his immediate family members. He himself was also quiet cooperative and followed the instructions well. As a result of this change, his performance in the class room increased, he became more accepted by the teachers, he could mix well with others and became more social, his level of expression increased, he became more participative in the classroom as well as other co-curricular activities. The implementation of modification techniques boosted his self confidence as a result; the boy who

would not leave his parents for a single moment apart from the school hours, alone attended a ten day training camp at Mumbai for handball. At this training camp he got selected to represent Gujarat team at national level. This is how he made his mark. His parents were very happy with his achievement.

So due to the resolution of problem behaviours his learning skills, his communication skills and his expressive skills increased, he became accepted by all, he got recognition. And other people of society become aware of his worth. The boy who was just neglected and considered worthless got recognition and status as a human being in the society. This can be shown by the bar graph which also indicates decrease in the problem behaviours.

Gradual decrease in the occurrence of problem behaviours is seen



Section-6

Impressions and opinions of parents and teachers about the techniques and its effectiveness

4.6 This section comprise of the opinions and impression of parents of the children under study and of the teachers of ARPAN – the institution selected for the present study.

These opinions and impressions were analyzed from the anecdotal records maintained by parents and through the interview of the parents and teachers as taken by the researcher.

4.6.1 Impression and Opinions of Parents and Teachers

These impression and opinions are stated by the researcher in their direct forms as told by parents and teachers.

- Both of them got sensitized about different kinds of problem behaviours. Earlier they called all the problem behaviours. Earlier they called all the problem behaviours as hyperactive behaviours. But after the interaction with the researcher they were able to identify different kinds of problem behaviours along with their major characteristics.
- They got aware about different causes of the occurrence of problem behaviours.
- They learnt about different behaviour modification techniques.
- Parents and teachers became capable enough in the use of behaviour modification techniques in their respective settings.
- They also learnt to judge the effectiveness of these techniques without using any tool. It was possible just by observing the child in his respective settings.
- According to the parents due to reduction or complete resolution of problem behaviours in their child, he became more accepted by all the family members and by other members of the society.

- It became easier for them to teach new skills to their children due to resolution of problem behaviours. As earlier they were much more engaged in solving these problem behaviours.
- According to them due to this intervention programme, they learnt authentic and actual ways of dealing with their children which not only saved their time but also energy.
- Their developed hope for the progress and development of their children.
- Due to this study, they could know their children (in terms of their capacities and potentialities) in a better manner.
- They started paying more attention towards their till now neglected child.
- They started cooperating with the teachers at ARPAN and started implementing the instructions given to them.
- Seeing the change in these thirty children under study, other parents also approached the researcher for tips for the development of their children also.
- According to the teachers due to this study they could observe marked change in these children under study.
- As a result of this change, it became easier for them to manage these children in their classroom.
- These children became more participative and interactive in the classroom activities.
- Due to this, they could see improvement in their academic performance.
- Their overall performance also improved.
- According to teachers they have become proficient enough to identify and manage problem behaviours as per their capacities and thereby help these children.

4.6.2 Major Findings

- The study has helped parents and teachers in understanding the child, identifying his problem behaviours and managing them.
- It has helped them to become self-reliant in case if in future problem behaviours occurred.