# THE IMPLEMENTATION OF A PROGRAMME FOR ATTAINMENT OF PERSONAL-SOCIAL OUTCOMES IN CLASSES FOR THE EDUCABLE MENTALLY RETARDED



PAULA FROST


CENTRE FOR NFLD. STUDIES
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MEMORIAL UNIVERSITY
OF NEWFOUNDLAND

# THE IMPLEMENTATION OF A PROGRAMME FOR ATTAINMENT OF PERSONAL-SOCIAL OUTCOMES IN CLASSES FOR THE EDUCABLE MENTALLY RETARDED

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The undersigned certify that they have read, and recommend for acceptance, a thesis entitled THE IMPLEMENTATION OF A PROGRAMME FOR ATTAINMENT OF PERSONAL-SOCIAL OUTCOMES IN CLASSES FOR THE EDUCABLE MENTALLY RETARDED submitted by Paula Frost, in partial fulfillment of the requirements for the degree of Master of Education.

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Supervisor

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Internal Reader

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External Reader

Date _____

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## ABSTRACT

This thesis reports an investigation into the effectiveness of a classroom programme designed to assist emotional and social development in educable mentally retarded students.

This study used three special education classes located in three schools under the jurisdiction of the Avalon Consolidated School Board in St. John's. The classes used were at the elementary level with children ranging in age from seven to eleven. There were a total of twenty-eight children involved. One class was randomly assigned to be the experimental group A. A second class was control group B while the remaining class became control group C.

An analysis of social-emotional needs was conducted in each group. From this analysis, goals were set for each child. In the experimental group and control group B, the teacher was involved in both the needs analysis and goal setting. The teacher was not involved in control group C.

Under the guidance of the investigator, the teacher of the experimental group initiated a five week programme to achieve the goals which were set for each child. The teachers of the other groups did not receive any assistance. At the end of the period, goal attainment was assessed for each child.

Social and emotional changes were found to have occurred in each class. The class receiving the experimental treatment showed the highest

level of goal attainment, while the control classes showed progress but to a lesser extent. Interesting differences were noted between the control classes which may be accounted for by differences in the treatment, differences in teachers, and circumstances under which the study was conducted.

The findings of this investigation indicate that educable mentally retarded students can be aided in their emotional and social development by programmes conducted in the classroom by the teacher, particularly if the teacher is assisted by a knowledgeable person in establishing and implementing the programmes. It is felt that such an effort would be a worthwhile investment of time and energy.

TABLE OF CONTENTS

## LIST OF TABLES

# CHAPTER I

## INTRODUCTION AND STATEMENT OF THE PROBLEM

In our society we are committed to offer opportunities for self-fulfillment to all, regardless of intellectual level. Recently the educable mentally retarded have been placed in special education classes where they have been offered special curricula. One criticism sometimes leveled at these classes is that they tend to emphasize academic achievement with very little help in the area of social and emotional development.

### I PURPOSE OF THE STUDY

This study compared three elementary special education classes for the purpose of investigating the effectiveness of a programme designed to achieve individual social and emotional goals. These goals were based on the assessed emotional and social needs of each of the subjects involved.

This was accomplished by establishing teacher-investigator interactions designed to develop and implement programmes for the attainment of social-emotional objectives in classes for the educable mentally retarded. These objectives dealt with social and/or emotional behaviour considered acceptable and preferable to that exhibited by the

child at the time of the needs assessment.

As outlined in Table I this study was conducted as follows:

1. assessment of individual needs in social-emotional development;
2. setting up desirable, realistic, and attainable goals for a five week programme of social-emotional development;
3. implementation of programmes designed to achieve individual goals; and
4. evaluation of programme success based on degree of individual goal attainment.

A more detailed discussion on procedures is given in Chapter III.

## II SIGNIFICANCE

It has been estimated that the incidence of educable mental retardation falls between 2 and 5 per cent of the school population.[1] Within the last seven years, the school boards in St. John's formally recognized the educable mentally retarded child and attempted to set up special classes to provide for the special educational needs of these children. At the elementary level, however, these programmes seemed to stress the educational needs of each child, not as an individual, but as

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[1] Lloyd M. Dunn, Exceptional Children in the Schools. (New York: Holt, Rinehart and Winston, Inc., 1967), pp. 71-93.

a member of a group of educable mentally retarded students. Very little had been done for the child as an individual with individual needs in the emotional social area.[2] At the level dealt with in this study (age seven to eleven years) teachers have been advised to concentrate on instruction in and acquisition of the basic academic skills such as learning letter sounds.[3] In general, regular guidance services are not provided though studies show that these children are capable of benefiting from such service.[4,5]

Cole says that educable mentally retarded children need acceptance from their school. They should be accepted for what they are and what they can do, avoiding the development of self-attitudes such as that they are 'stupid'. This can be done by introducing to them tasks which they are capable of completing successfully and helping them feel pride and satisfaction in doing well the work they can do, no matter what it is.[6]

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[2] Melvin Burden, The Efficacy of Special Class Placement for the Educable Mentally Retarded as Indicated by Measures of Academic Achievement and Social Adjustment. (Unpublished Master's Thesis, Memorial University of Newfoundland, St. John's, Newfoundland, August 1971), p. 76.

[3] Ibid

[4] S. R. Slavson, Introduction to Group Therapy. (New York: Internation Universities Press, 1951).

[5] M. Cotzin, "Group Psychotherapy with Mentally Defective Problem Boys." In C. L. Stacey and M. F. DeMartino (Eds.) Counseling and Psychotherapy with the Mentally Retarded. (Glencoe, Ill.: Free Press, 1967), pp. 169-186.

[6] L. Cole, Psychology of Adolescence. (New York: Holt, Rinehart and Winston, 1961), pp. 238-248.

Once the educable mentally retarded child leaves school, he will have to face the stresses and strains of adult life and be required to make decisions, yet he will lack the mental capacity needed to reason out which choice he should make.[7] Such a child needs help in realizing that he may encounter difficulty and in learning to respond satisfactorily to such a situation when it occurs by seeking help rather than guessing or bluffing.[8] This is essential to the development of social competence which contributes to achieving his potential for independence. It is necessary, then, to begin as early as possible the process of equipping him with the skills he will need to see him safely through danger. He must be able to leave school socially and emotionally well adjusted and well grounded in the fundamental habits of honesty, responsibility, and decency.[9]

Educable mentally retarded students are limited in what they can accomplish in the working world and studies show that their success in becoming financially independent and self supporting will depend heavily

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[7] Ibid

[8] Marion J. Erickson, The Mentally Retarded Child in the Classroom. (New York: The Macmillan Company, 1965), pp. 45-53.

[9] Cole, loc. cit.

on their social skills and personal adjustment (Hickman,[10] Fine,[11] Dunn,[12] Young,[13] Erickson,[14] and Johnson[15]). Such qualities as cheerfulness, consideration of others, responsibility, good manners, and honesty are important for them to acquire.[16] Without these they may very well be eliminated from outside employment even though otherwise qualified in a particular skill.[17]

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[10] Leon H. Hickman, "A Foundation for the Preparation of the Educable Child for the World of Work." Training School Bulletin, LXIV (May, 1967), pp. 39-44.

[11] Marvin J. Fine, "Counselling with the Educable Mentally Retarded." Training School Bulletin, LXVI (November, 1969), pp. 105-110.

[12] Lloyd M. Dunn, "Special Education for the Mildly Retarded - Is Much of it Justifiable?" Exceptional Children, XXXV (September, 1968), pp. 5-22.

[13] M. A. Young, "Academic Requirements of Jobs Held by the Educable Retarded in the State of Conneticut." American Journal of Mental Deficiency, LXII (1958), pp. 792-802.

[14] Erickson, op. cit. pp. 103-114.

[15] G. Orville Johnson, "The Education of Mentally Retarded Children." In William W. Cruickshank and G. Orville Johnson (Eds.) Education of Exceptional Children and Youth. (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967), pp. 200-237.

[16] Erickson, op. cit. pp. 103-114.

[17] Hickman, loc. cit.

A result of their impairment in intellectual functioning is the presence of a degree of social inadequacy.[18] They tend to associate more with those of similar mental ability.[19,20] Kingsley reports that most investigators tend to agree that the educable mentally retarded have more problems associated with personal-social adjustment than their peers. Much of their behaviour is a reaction to failures of an interpersonal nature occurring in the home and during or after school hours.[21] Generally speaking, then, educable mentally retarded children can be expected to be lagging in their social development; but, social incompetence is not inevitable.[22]

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[18] H. A. Lemmee, "Social Adjustment for the Intellectually Handicapped." School and Community, LIV (November, 1967), pp. 10-11.

[19] R. A. Dentler, and others, "Mental Ability and Sociometric Status Among Retarded Children." Psychological Bulletin, VIX (1962), pp.273-283.

[20] Cruickshank and Johnson; loc. cit.

[21] R. F. Kingsley and C. F. Spies, "The Relationship of Interests to Social Acceptance of Educable Mentally Retarded Boys in a School Camping Program." Training School Bulletin, LXVI (November, 1969), pp. 93-98.

[22] Cole, loc. cit.

For these children, already inadequately endowed mentally to cope with life's complexity, there is a great need and, therefore, an obligation to members of the educational team for setting up a social-emotional development programme which will assist the teacher in developing classroom activities which aim to (i) increase general security, (ii) enhance social relations, and (iii) promote personal adjustment. Kirk and Johnson include social and emotional development in listing the purposes of a programme for the educable mentally retarded. They state them as follows:

1. They should be educated to get along with their fellow men; i.e. they should develop social competence through numerous social experiences.
2. They should develop emotional security and independence in the school and in the home through a good mental hygiene program.[23]

Johnson supports this. In specifying objectives of a special education programme, he mentions (i) personal or emotional adjustment, and (ii) social adjustment.[24]

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[23]Samuel A. Kirk and G. Orville Johnson, Educating the Retarded Child. (Boston: Houghton Mifflin Company, 1951), p. 118.

[24]Cruickshank and Johnson, loc. cit.

Such a social-emotional development programme would foster the development of a favourable self-concept which is essential to personal happiness and effective functioning. Incorporated into the regular special education classroom activities, such a programme started early and carried on throughout the school years could enable each child to leave school with the skills, attitudes, and behaviours necessary for a satisfactory interdependent existence in today's complex society.

> Learning environments must be planned and provided that will enable the child, operating at the level of the educable retarded, to receive those learning experiences that will teach him to use his intelligence as effectively as possible.[25]

As Kirk points out,

> The ultimate purpose of educating mentally retarded children is to help them adjust to the community at the adult level as social participants and wage earners.[26]

The programme reported on in this paper emphasized attention to each child, taking into account his idiosyncracies to evaluate his individual needs. The study will be important in developing experience and insight into the procedures of needs assessment and goal setting, and into the nature of the relationship between counsellor and teacher which

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[25] Ibid, p. 202.

[26] Samuel A. Kirk, Educating Exceptional Children. (Boston: Houghton Mifflin Company, 1962), p. 113.

will facilitate this procedure. It is possible that results of this investigation may have implications for educational policy regarding the programmes developed for the children placed in special education classes.

## III MAJOR HYPOTHESES

The following hypotheses were investigated in this study:

1. The proportion of goals attained by experimental group A will exceed that attained by control group B.

2. The proportion of goals attained by control group B will exceed that attained by control group C.

3. The proportion of goals attained by experimental group A will exceed that attained by control group C.

## IV DEFINITIONS

Educable Mentally Retarded Children. In this report, this term referred to students whose intelligence quotient, as measured by an individual intelligence test, fell between 50 and 80. These children were considered to be "capable of developing skills through which the ability to achieve total independence in adult society can be realized".[27]

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[27] Fred G. Martin, A survey of identification and placement procedures, teacher qualifications, facilities, instructional programs, and financing of schools for the trainable mentally retarded and of opportunity classes in the schools of Newfoundland. (Unpublished Master's thesis, Memorial University of Newfoundland, St. John's, Newfoundland, December, 1969).

Special Education Class. This term was used to refer to those classes set up (in the regular schools) for educable mentally retarded students.

Need. In this investigation, need referred to an individual condition indicating that a behavioural change was desirable if social-emotional development were to progress positively.

Social-Emotional Behaviour. (a) Social Behaviour:- That behaviour exhibited by the individual student which involved or was directed toward others.

(b) Emotional Behaviour:- Individual reactions of the student which involved the expression of his feelings toward others or toward specific situations.

The aspect of social-emotional behaviour concerned within this investigation was that displayed by the individual (i) which was inappropriate in the particular situation in which it occurred, and (ii) which was inappropriate with respect to the developmental level of the individual exhibiting it.

Goal. In this investigation, goal referred to a particular description of individual behaviour which was expected to be observed by the end of the programme.

## V LIMITATIONS

The following limitations were factors influencing this study:

1. This study was limited by the length of time over which the programme was conducted. Ideally, such a programme should be integrated into the classroom curriculum. Longer term programmes permit more comprehensive and ambitious goal settings. Behavioural change in the social-emotional realm is difficult to achieve; therefore, a five week programme limited the goals which would be reasonably attainable.

2. Another limiting factor was that the programme was carried out only in school, without parental involvement or support from the child's home environment. Therefore, goals could not be assigned which required the assistance of the home in their achievement.

3. Another factor involved was the limited number of special education classes used in this study. Teacher competence was not a factor influencing the setting of individual goals. It might have been a factor in achieving the goals.

4. An important limitation in this study was the validity of the goal setting procedure, which required the establishment of individual goals which could have been reasonably attained during the five week period of the programme. Inexperience with the problems of needs assessment

and goal setting had an unknown effect on the validity of the procedure; however, this study will be important in providing insight into the problem.

## VI OUTLINE OF THIS REPORT

Literature relevant to this study is reviewed in Chapter II. A detailed account of the experimental design of the study is given in Chapter III. Chapter IV contains the results of the analysis of data, a discussion of these results, as well as some implications for change in education, and future research.

## CHAPTER II

## REVIEW OF LITERATURE

Information on the physical, intellectual, and emotional characteristics of the educable mentally retarded child is scarce.[1] A brief review of those studies closely related to the present investigation will be given in this chapter under the following headings: 1. General Characteristics; and, 2. Emotional and Social Adjustment.

### I GENERAL CHARACTERISTICS

#### Intelligence

Educable mentally retarded children are those whose intellectual capacity is only about one half to three quarters of that considered average. That is, their intelligence scores, when measured by individual intelligence tests, fall between 50 and 75. It is, therefore, most likely that these children will experience difficulty with the regular class curriculum.[2] 'Learning' for them poses a problem which varies significantly from that of normal children.

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[1] G. Orville Johnson, "The Education of Mentally Retarded Children." In William M. Cruickshank and G. Orville Johnson (Eds.) Education of Exceptional Children and Youth. (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1967), pp. 200-237.

[2] Lloyd M. Dunn, Exceptional Children in the Schools. (New York: Holt, Rinehart and Winston, Inc., 1967), pp. 71-93.

Learning Ability

The psychology of learning for the educable mentally retarded differs from that of normal children. The educational objectives are not the same. In the mentally retarded it is important to remember that the inability manifested is a result of incapacity which no remedial education can overcome. In working with a limited potential, one attains a limited result. The task is to discover ways of assisting the mentally retarded student to learn at the maximum level of his potential.[3]

Educable retardates, once they have achieved a mental age of six to six and one-half (between the chronological ages of eight to twelve years), have a reasonable chance of profiting from formal instruction in the basic school subjects. As they mature, they are able to learn, retain, and transfer quite complex motor and verbal skills, according to their mental age."[4] They learn more slowly and have poorer short term memory than those of average ability; but, once they have thoroughly learned, they may retain as well as the average.[5]

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[3] Doris J. Johnson and Helmer R. Myklebust, Learning Disabilities, Educational Principles and Practices. (New York: Grune and Stratton, 1968), p. 12.

[4] Dunn (1967), loc. cit.

[5] Ibid

It should be remembered that mentally retarded children who are functioning at their capacity should not be considered educationally retarded. In determining this, mental age should be used, not chronological age or grade placement. The average child can normally be expected to have reached grade seven by the time he is twelve years old. The educable retarded child of the same age, however, would be considered doing well if he were working at or near the grade four level in school.[6]

By the time these children have reached the school-leaving age of sixteen, they will, as a group, have mental ages ranging from eight to twelve years and have possibly achieved a maximum academic level between grade three and four. Most of these will, on the average, be capable of achieving grade four to five level. For the most part, they will remain at this level throughout adulthood.[7]

Development

Most educable retarded children are within the normal range in most areas of their development. It is in the area of intellectual growth where development is significantly retarded, that they show their greatest deviation and disability.[8]

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[6] Ibid, p. 73.

[7] Ibid, p. 72.

[8] Cruickshank and Johnson, loc. cit.

> Aside from this single deviation and the impact it may have in terms of growth and development where intelligence plays a significant role, educable retarded children appear, react, and grow in essentially the same ways and at approximately the same rate as their normal associates.[9]

However, other developmental milestones may be late. Walking is apt to be slow and talking even more noticeably delayed. Johnson states that this "is undoubtedly due to the intellectual factors involved rather than a deficiency in physical and motor development".[10] Eight to thirty-eight per cent of the educable retarded experience difficulty with language. The extent of delayed language is even greater than the extent of speech problems. They lack rich vocabulary, ability to associate ideas, skill in verbal expression, have difficulty in learning to read and rarely succeed in achieving sixth-grade competency before leaving school.[11]

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[9] Ibid

[10] Ibid

[11] L. Cole, Psychology of Adolescence. (New York: Holt, Rinehart and Winston, 1961), pp. 238-248.

Mental Ability

Educable mentally retarded children have a limited ability for abstract thinking and an inability to generalize.[12] This is especially noticeable when they are confronted with a moral decision. Cole points out that a child must have a mental age of twelve as measured by the Binet Scale, before he develops an understanding of even elementary concepts such as "pity", "sympathy", or other single virtues. In order to comprehend the generalized principles of behaviour, a much higher mentality would be a prerequisite.[13] Many fail to grasp the significance of hazards. They do not perceive danger and consequently do not relate their behaviour to the future. Often they find the rules and sequences of games confusing unless they are explained to them.[14]

Summary

In summary of the above, it may be concluded that though these children may have limited ability for abstract thinking, they have much the same repertoire of needs and emotions as the normal child. They are capable of "leading a full and worthwhile life commensurate

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[12] Dunn (1967), loc. cit.

[13] Cole, loc. cit.

[14] Johnson and Myklebust, op. cit. pp. 295-296

with their limited abilities".[15] Efforts should be made to help them develop positive self-concepts and a feeling of human worth and dignity. They, too, can "learn the joy of serving on community projects for the welfare of others".[16]

## II SOCIAL AND EMOTIONAL ADJUSTMENT

> In . . . our other-directed society it seems especially important that children become sensitive and responsive to the expectations and demands of their contemporaries. Social learning during the childhood years provides some of the necessary preparatory experiences for achieving the social skills required for happiness and success during adult life.[17]

The retarded child does not experience major difficulties emotionally or socially in his preschool years. He prefers the company of younger normal children who are functioning at his level (Dentler and others[18] and Cruickshank and Johnson[19]).

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[15] Dunn (1967), loc. cit.

[16] Ibid

[17] George G. Thompson, "Influence of Different Nursery School Experiences on Social Development." Behaviour In Infancy and Early Childhood. Edited by Yvonne Brackbill and George G Thompson. (New York: The Free Press, 1967), pp. 546-555.

[18] R. A. Dentler and others, "Mental Ability and Sociometric Status Among Retarded Children." Psychological Bulletin, LIX, (1962), pp. 273-283.

[19] Cruickshank and Johnson, loc. cit.

At the age of five or six, however, the child goes to school and is forced into the company of his age peers who may be mentally one or two years his senior. He has difficulty interacting with them socially and prefers activities which they have already outgrown. Within a couple of years, if not sooner, he may find himself socially segregated and rejected by his classmates (Jones and Johnson,[21] Miller,[22] Baldwin,[23] and Johnson and Kirk[24]).

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[20] R. L. Jones and others, "The Social Distance of the Exceptional." Exceptional Children, XXXII (1966), pp. 551-556.

[21] G. O. Johnson, "A Study of the Social Position of Mentally Handicapped in the Regular Grades." American Journal of Mental Deficiency, LV (1960), pp. 60-88.

[22] R. V. Miller, "Social Status and Socioempathic Differences Among Mentally Superior, Mentally Typical and Mentally Retarded Children". Exceptional Children, XXIII (1956), pp. 114-119.

[23] W. K. Baldwin, "The Educable Mentally Retarded in the Regular Grades." Exceptional Children, XXV (1958), pp. 106-107.

[24] G. O. Johnson and S. Kirk, "Are the Mentally Handicapped Children Segregated in the Regular Grades?" Journal of Exceptional Children, XLII (1950), pp. 65-88.

Often unacceptable behaviour patterns of aggressiveness develop, probably as a reaction to failure and the destructive mechanisms of social devaluation and social isolation. Cole points out that chronic academic failure may contribute to the development in the individual of profound feelings of inferiority, self-distruct, and physical timidity, or may cause a defiant attitude toward the school.[25] Lemmee suggests the solution lies in removing, as far as possible, those influences in the child's environment which hinder adequate social adjustment.[26] Dunn justifies special class placement partially on the need for a special curriculum which stresses the development of social skills as well as the acquisition of basic tool subjects. He mentions, however, that studies conducted in the 1950's and 1960's have shown that retarded children who stayed in the regular grades did as well as, or better academically, than those in the special class.[27] Recently, a study done locally by Burden supports this.[28] Dunn explains that two or

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[25] Cole, loc. cit.

[26] H. A. Lemmee, "Social Adjustment for the Intellectually Handicapped." School and Community, LIV (November, 1967), pp. 10-11.

[27] Dunn (1967), loc. cit.

[28] Melvin Burden, The Efficacy of Special Class Placement for the Educable Mentally Retarded as Indicated by Measures of Academic Achievement and Social Adjustment. (Unpublished Master's Thesis, Memorial University of Newfoundland, St. John's, Newfoundland, August 1971).

three years of failure in the regular grades probably predispose the child to lack of success after special class placement. But those in special classes did have better social and personal adjustment scores than those competing in the regular grades.[29] Burden, however, did not find this in his study, and felt that it might be due to academic emphasis in the special education class.[30]

All children, including those of lower intellectual ability, have certain basic needs that will promote the development of healthy attitudes and aid them in becoming emotionally healthy individuals. Johnson says

> These basic needs consist of opportunities to participate in worthwhile activities, to feel that they are valuable, contributing members of a group, to be accepted for what they are, and to have success in the performance of these worthwhile activities.[31]

Cole suggests several ways in which educable mentally retarded children are socially and emotionally similar to their normal peers.

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[29] Dunn (1967), loc. cit.

[30] Burden, loc. cit.

[31] Cruickshank and Johnson, loc. cit.

Usually they are able to make friends with those of similar or even superior ability and they remain devoted to them. They engage successfully in non academic activities.[32] Fine, however, found that in regard to emotional adjustment, a group of educable mentally retarded boys were significantly less secure than age-matched normal boys and the retarded children also demonstrated a greater preference for defensive and consequence-avoiding behaviour.[33]

These children are deficient in social perception; that is, in their awareness of the actions of another person that reveal his attitudes, feelings, or intentions and in their perception of the total social field and perception of themselves in relation to the behaviour of others as well as to events and circumstances that involve others. The educable mentally retarded child enjoys being part of a family or being a member of a play group. However, his deficient social perception impedes the acquisition of basic patterns of behaviour often rendering him unable to do so successfully in spite of his efforts to conform. The ability to make social judgements and play the

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[32] Cole, loc. cit.

[33] Marvin J. Fine, "Security Patterns of Normal and Educable Mentally Retarded Boys." The Bulletin of the Institute of Child Study, (University of Toronto), XXVII (1965), pp. 13-17.

appropriate role, like the acquisition of many other aspects of adjustment, comes through motivation and learning.[34]

Cole notes that without special training the social adjustment of the educable mentally retarded child is likely to be poor because he does not have the intellectual equipment to meet successfully the demands made on him.[35] As Johnson says

> The ultimate objective in the area of social adjustment is complete social independence in society at large. . . . This is achieved by teaching the child to make adjustment compatible with his developmental level. Continued social experiences and expansion of self-direction as the child matures will enable him to grow in this area . . . As he learns to adjust to social situations requiring greater social maturity and understanding, he also learns to make the necessary adjustments that will be required of him as an adult.[36]

Summary

In summary, then, though handicapped intellectually and behind socially and emotionally, educable mentally retarded children are capable of benefiting from activities that will develop and strengthen their emotional and social adjustment enabling them to realize their potentials and achieve independence in adult society.

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[34] Johnson and Myklebus, op. cit. pp. 295-296.

[35] Cole, loc. cit.

[36] Cruickshank and Johnson, loc. cit.

# CHAPTER III

## DESIGN OF THE STUDY

### I GENERAL PROCEDURE

This investigation employed a pre-test - post-test two control group design. The study investigated the effect of programmes designed to achieve specific social and emotional outcomes set following a needs analysis. All students in three special education classes operating within the schools under the jurisdiction of the Avalon Consolidated School Board were the subjects of this study.[1] The sample consisted of twenty-eight children in all.[2]

Three groups of students were used in this study. The following is an outline of procedures applied to each group, as depicted in Table I.

The first group, group A, the experimental group, was involved in a two week observation period after which social-emotional goals were established for each child with the help of the teacher. The teacher, then, over a five week period, executed programmes designed to achieve these goals. At the end of this time, a second assessment was made to determine the extent of goal attainment.

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[1] Permission for carrying out this study was obtained from the School Board.

[2] The original enrollment of the classes totaled twenty-nine. However, there was a loss of one subject over the period of the study.

TABLE I

FLOW CHART OF PROCEDURES

| Activity | Assess Needs (2-weeks) | Feed Back | Set up Goals | Teachers Involved in Goal Setting | Programme (5-weeks) | Evaluate Programme |
|---|---|---|---|---|---|---|
| Groups Involved | A<br>B<br>C | A<br>B | A<br>B<br>C | A<br>B | A | A<br>B<br>C |
| Methods Used | 1. B.R.S.<br>2. Observations | Interviews | | Interviews | | 1. B.R.S.<br>2. Observations |

Key: B.R.S. - Behaviour Rating Scale

The second group, group B, the first control group, was involved in an observation period and goal-setting programme similar to group A. As with group A, the goals were set with the teacher's assistance. She was encouraged to try and work to achieve them. However, unlike group A, the investigator did not intervene to help the teacher. An assessment to determine goal achievement was made at the end of the five week period.

The third group, group C, the second control group, was involved in an observation period similar to groups A and B. However, unlike groups A and B, the teacher was not involved in the goal setting programme, nor was she given the information regarding the goals set. As with group B, the investigator did not intervene with programmes to help the teacher achieve the goals. At the end of the five week period, a second assessment was made to determine the extent of goal attainment.

## II SUBJECTS

### Selection of Subjects

The subjects for this study were an intact population of three elementary special education classes. The children had been carefully selected for these classes before the experiment was conducted in the Spring of 1970. They were referred by teachers for attention because they had been experiencing academic difficulty in the regular classes. The teachers suspected this was due to less than normal mental ability.

A psychological evaluation was done individually on each child.[3] Those children whose measured I.Q. fell between 50 and 80 were referred to the School Medical Health Office for a medical and physical examination. Children were placed in the special education classes on the basis of the following: (i) academic difficulty; (ii) results of psychological evaluation; and (ii) recommendations from the School Medical Health Office. As many of these children as possible were placed in special education classes as soon as permission had been obtained from the parents.

Several children whose I.Q. scores fell above 80 were also placed in special education programmes temporarily. Their progress was to be reviewed at the end of the year with the view to returning them to regular class as soon as they were ready.

Selection of Classes

Once permission to conduct this investigation had been obtained from the Avalon Consolidated School Board, three of seventeen classes were selected using the following criteria: (i) age of the students enrolled in the class; and (ii) teacher similarity based on age, experience, educational background, and attitude. Teachers and principals involved with these three classes were then approached for permission. All expressed an interest in the investigation and volunteered their classes and their

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[3]The psychological evaluation was part of the process used for screening a student for admission to a special education class. It consisted of administering individually either the Stanford Binet or WISC depending on the age of the child.

co-operation. These three classes were then assigned randomly for experimental or control treatments. Each class was located in a different school. This minimized the possibility of teacher interaction. Teachers were requested not to communicate with each other regarding the investigation.

Description of Groups

Tables II through IV give statistics for each of the students in groups A, B, and C respectively. Table V summarizes and compares these statistics for all of the groups.

As can be seen in Table V, groups A and B were similar for all the factors which were noted. Group C, however, tended to have children who were somewhat older. It also had a higher mean I.Q. and mean mental age than the other groups. Finally, group C students had also been in special education classes much longer on the average.

TABLE II

STATISTICS ON GROUP A

| Subject | Sex | Age | I.Q.[1] | M.A. | Years in Sp. Class Including Present | Grade Level[2] | Cultural Background |
|---|---|---|---|---|---|---|---|
| A- 1 | M | 7-7-25 | 62 | 4- 7 | 1 | 0.0 | U |
| A- 2 | M | 8-5-22 | 63 | 5- 7 | 1 | 0.6 | U |
| A- 3 | M | 8-5-11 | 81 | 6- 9 | 1 | 1.8 | U |
| A- 4 | M | 8-3- 3 | 84 | 7- 0 | 1 | 1.9 | R[3] |
| A- 5 | F | 8-8-16 | 91 | 7-10 | 1 | 2.8 | U |
| A- 6 | M | 11-2-27 | 51 | 5- 7 | 2 | 0.6 | U |
| A- 7 | F | 10-1-13 | 75 | 7- 6 | 1 | 2.5 | U |
| A- 8 | M | 8-0- 3 | 75 | 6- 0 | 1 | 1.0 | U |
| A- 9 | M | 10-5-11 | 69 | 7- 3 | 1 | 2.4 | U |
| A-10 | M | 10-0-26 | 73 | 7- 0 | 1 | 2.0 | U |

Key: M - Male
F - Female
U - Urban
R - Rural

[1] The WISC was administered individually to determine I.Q.

[2] Grade Level = Mental age - 5.

[3] A small community as distinguished from a city or town.

TABLE III

STATISTICS ON GROUP B

| Subject | Sex | Age | I.Q.[1] | M.A. | Years in Sp. Class Including Present | Grade Level[2] | Cultural Background |
|---|---|---|---|---|---|---|---|
| B-1 | M | 6-10- 5 | 74 | 5- 0 | 1 | .0 | U |
| B-2 | M | 7- 8-22 | 77 | 5-10 | 1 | .8 | U |
| B-3 | M | 7-11-15 | 69 | 5- 7 | 1 | .6 | U |
| B-4 | M | 9- 0-18 | 74 | 6- 9 | 1 | 1.7 | U |
| B-5 | M | 8- 5-24 | 70 | 5-11 | 1 | .9 | U |
| B-6 | M | 9- 6-14 | 77 | 7- 7 | 1 | 2.6 | U |
| B-7 | M | 8- 6- 1 | 70 | 5-11 | 1 | .9 | U |
| B-8 | M | 11- 1-21 | 62 | 6- 9 | 1 | 1.8 | U |

Key: M - Male
U - Urban

[1]The WISC was administered individually to determine I.Q.

[2]Grade Level = Mental age - 5.

TABLE IV

STATISTICS ON GROUP C

| Subject | Sex | Age | I.Q.[1] | M.A. | Years in Sp. Class Including Present | Grade Level[2] | Cultural Background |
|---|---|---|---|---|---|---|---|
| C- 1 | M | 8- 4- 1 | 69 | 5-10 | 3 | 0.8 | U |
| C- 2 | M | 9- 5-26 | 74 | 7- 0 | 3 | 2.1 | U |
| C- 3 | F | 9-11- 6 | 67 | 6- 8 | 3 | 1.7 | U |
| C- 4 | M | 8- 6-23 | | | 1 | | R[3] |
| C- 5 | M | 8- 6- 6 | 87 | 7- 4 | 3 | 2.4 | U |
| C- 6 | M | 11- 8- 0 | 78 | 9- 1 | 3 | 4.2 | U |
| C- 7 | M | 12- 4-26 | 79 | 9-11 | 2 | 4.9 | U |
| C- 8 | M | 9- 2-22 | 88 | 8- 1 | 3 | 3.1 | U |
| C- 9 | M | 11- 5-12 | 73 | 8- 7 | 3 | 3.6 | U |
| C-10 | M | 7- 5-23 | 94 | 7- 3 | 2 | 2.2 | U |

Key: M - Male
F - Female
U - Urban
R - Rural

[1] The WISC was administered individually to determine I.Q.

[2] Grade Level = Mental age - 5.

[3] A small community as distinguished from a city or town.

TABLE V

COMPARISON OF GROUP STATISTICS

| Group | N | Sex | | $\bar{x}$ Age | $\bar{x}$ I.Q. | $\bar{x}$ M.A. | $\bar{x}$ Years in Sp. Class Including This Year | $\bar{x}$ Grade Level | Cultural Background | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | M | F | | | | | | U | R |
| A | 10 | 8 | 2 | 9-1-21 | 72.4 | 6-6 | 1.1 | 1.6 | 9 | 1 |
| B | 8 | 8 | 0 | 8-6-11 | 71.6 | 6-2 | 1.0 | 1.2 | 8 | 0 |
| C | 10 | 9 | 1 | 9-8-15 | 78.7 | 6-9 | 2.6 | 2.7 | 9 | 1 |

Key: M - Male
F - Female
U - Urban
R - Rural

Description of Teachers

1. Teacher of group A: The teacher of this group was twenty-five years old and had seven years teaching experience prior to this year. This was her first year teaching a special education class. She had completed three years of university education including one-half course in Psychology, one course in corrective reading, and one half course in exceptional children.

2. Teacher of group B: The teacher of this group was twenty-three years old and had no previous teaching experience. This was her first year teaching a special education class. She had completed five years of university education obtaining a B.A. degree with a major in Psychology. The course she had taken included nine and one-half courses in Psychology, one course in corrective reading, and one course in exceptional children.

3. Teacher of group C: The teacher of this group was twenty-five years old and had five years teaching experience prior to this year. She had previously taught a year in special education, but had not taught her present class. She had completed two years of university education which included three and one-half courses in Psychology, one course in corrective reading, and one course in exceptional children.

As can be seen from Table VI, the teachers were similar in many respects; however, they did differ in terms of their academic preparation and teaching experience. They all were similar in terms of university

TABLE VI

COMPARISON OF STATISTICS ON TEACHERS

| Group | Age | Previous Teaching Experience | Sp. Class Teaching Experience (Including this year) | University Education | Course in Exceptional Children | Course in Corrective Reading | Courses in Psychology |
|---|---|---|---|---|---|---|---|
| A | 25 | 7 | 1 | 3 | ½ | 1 | ½ |
| B | 23 | 0 | 1 | 5 | 1 | 1 | 9½ |
| C | 25 | 5 | 2 | 2 | 1 | 1 | 3½ |

course work related directly to work in special education; but, the teacher of group B had done considerably more work in Psychology. On the other hand, the teacher of group B had no teaching experience, while the other two teachers had been in the classroom for quite some time.

All the teachers expressed an interest in working with educable mentally retarded children and reported that they found their work enjoyable and challenging. The teacher of group C had had the most experience teaching educable mentally retarded children; however, the contrast with the other teachers was not great, especially since the less experienced teachers had had nearly a full school year to become acquainted with a special education classroom.

## III TREATMENT

### Assessment of Needs

The emotional and social adjustment needs of all subjects in this study were assessed over a two week period using a behaviour rating scale (see Appendix A) completed by the teachers on each child enrolled in their class, and observations of the child as a member of a group.

Behaviour Rating Scale. On each behaviour rating scale, items were checked off as being characteristic of the behaviour of each child. Because of the design of the scale, the data yielded behavioural descriptions of emotional and social dimensions which were regarded as inappropriate, and, therefore, indicating that a behaviour change was desirable if the

child's social-emotional development were to progress positively.

Observations. Classroom observations were made by two trained assistants as well as the investigator. The observers were instructed to concentrate on behaviour displayed by the student which was inappropriate in the particular situation in which it occurred, and inappropriate with respect to the developmental level of the student exhibiting it.

These observations were made daily for the two week needs assessment period with the trained assistants and the investigator spending an hour a day each visiting a separate class, rotating daily according to a prearranged schedule. This yielded ten one-hour observations on each class, one for each day of the needs assessment period.

It was decided that the diary type of recording observations was the best method for this investigation, since the observers were entering a relatively unexplored area and did not know what variables in the observable behaviour were going to be important. From these records of classroom observations, only those descriptions concerning inappropriate social-emotional behaviour were used for the consequent goal setting.

Sociogram. A sociogram was designed and administered to each child individually during the final observation period. It was hoped that this would yield information regarding the social structure of the class and could be used as an indicator of social needs. However, this instrument

was not found useful and, consequently, the information obtained from administering it was not used for the needs analysis and consequent goal setting. For further information on the Sociogram, see Appendix B.

At the end of the two week period of needs assessment, information regarding the emotional and social needs assessed were discussed with the teachers of group A and B. Each teacher was interviewed separately regarding confirmation of the needs assessed for each child in her class.

Goal Setting Procedure

From the descriptions of inappropriate behaviour yielded by the behaviour rating scale and classroom observations, goals were set up describing the individual behaviour which was expected to be observed by the end of the programme.

This procedure was repeated for all descriptions of inappropriate social-emotional behaviour for each child, with individual goals set up and labled accordingly as social or emotional.

1. Group A and Group B: In consultation with the teacher of group A, the teacher of group B, and the trained assistants, goals were established for each child in group A and group B, each teacher being involved only with the assignment of goals to her own students. It was hoped that involving the teachers in this way would help establish validity in the goal setting procedure and motivate the teacher to work toward goal

attainment. For further information on goal setting procedure, see Appendix C which gives an illustration of the procedures using a child from Group A.

2. Group C: Goals for each child in this group were set by the investigator and two trained assistants. This information was not communicated to the teacher. However, in order to help determine the validity of the goal setting procedure and ensure goal appropriatness for these children, the teacher was asked after the completion of the five week experimental period to rate each goal as appropriate or inappropriate for each child. Only one goal was rated as inappropriate.

Validation of goals. All goals for each child in each group were validated by two independent judges who rated the goals as appropriate or inappropriate for the particular child to whom they were assigned, contingent on the child's measured intelligence, calculated mental age, and chronological age. Each judge rated all goals as appropriate.

Programme Development

1. Programme: Group A was the experimental group in this investigation. Programmes were designed to achieve the individual goals set for each child in this group. They were developed through interactions with the teacher and essentially, consisted of remedial activities, behaviour modification, and social training carried on in the classroom by the teacher in order to cause as little disruption as possible and make it

a natural part of the classroom learning situation. The investigator participated in the development of the programmes while the execution of the programmes was carried out by the teacher. The duration of these programmes was five weeks.

2. Investigator - teacher interactions: In this particular investigation, the attitude of the teacher toward the children in her class was considered to be of utmost importance. The attitude of the teacher toward each child affects the self-concept the child has of himself. A child who perceived that his teacher felt that he could not successfully do something, whether it involved his intellectual competance or his ability to interact with others, would most likely adopt that attitude predisposing himself to failure, or keeping him from even trying. As Rosenthal and Jacobson say, " . . . one person's expectation for another's behaviour could come to serve as a self fulfilling prophecy".[4] It was felt that the behaviour one expects is the behaviour one gets and that those who succeed at something are, for the most part, those who think they can.

Erickson mentions the importance of developing an attitude of 'acceptance' in the teacher toward her pupils.[5] Acceptance involves "respect, understanding, and an appreciation of the individual, and an interest in his growth and success."[6] Efforts were made, then, to encourage

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[4] Robert Rosenthal and Lenore Jacobson, Pygmalion in the Classroom. (New York: Holt, Rinehart and Winston, Inc., 1968), pp. 174-182.

[5] Marion J. Erickson, The Mentally Retarded Child in the Classroom. (New York: The Macmillan Company, 1965), p. 73.

[6] Ibid

the teacher to treat the children in a more pleasant, friendly and supportive fashion[7] communicating to them by what she said, how she said it, and by her facial expression, that she expected positive change as expressed in the goals for each child. Rosenthal and Jacobson suggest that such techniques may help a child learn by "changing his self-concept, his expectations of his own behaviour, and his motivation. . . ."[8]

An essential part of the programme consisted of suggestions to the teacher that she establish herself with each child as a non-critical, understanding, interested person who helps the child toward the behaviour aimed at by enthusiastic, encouraging suggestions to the child indicating to him that she expects certain behaviour from him. It was hoped that this would alter or modify the child's self-concept to a degree that would increase his confidence in his ability to successfully accomplish specific tasks which were closer and closer approximations of the behaviour indicated by the goals set for him. An important part of this was the reinforcement used to ensure a high probability that the behaviour would recur. The teacher was asked to ascertain for each child something that the child would find rewarding whether it be praise or whether it be obtaining permission to do something special (such as proceed to the games area or project table upon completion of the assigned task). One specific suggestion made to the teacher was that initially, when assigning her tasks

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[7] It should not be assumed from this that the teacher conducted herself in an undesirable manner in the classroom. These suggestions were, for the most part, merely reinforcing her present behaviour.

[8] Rosenthal and Jacobson, loc. cit.

to the children, she reward effort even if the task were not completed. Gradually, then, closer approximations to the goal would be required before the child would be rewarded. For an illustration of how this programme was applied to one particular case, see Appendix C.

The investigator observed the teacher carrying out the programmes and frequent contact was maintained with her throughout the five week programme. During the contacts, assessments were made of current progress, and programmes were modified where necessary (that is, continous evaluation).

## IV ASSESSMENT OF GOAL ATTAINMENT

Following the last week of the five-week experimental programme, a period of three days was used to make an assessment of goal attainment in all three groups.

### Behaviour Rating Scale

A measure of behavioural change was obtained by readministering the behaviour rating scale. This was completed by the teacher of each group and the results were compared with those obtained during the needs assessment. The results obtained from this instrument were not used in the calculation of a goal attainment value.

### Observations with Goal Rating Sheet

Four copies of the list of social and emotional goals set for each child in each group were made with one copy going to the teacher of the child, a second and third copy going to the trained assistants who

participated in the needs assessment and goal setting, and a fourth copy to the investigator. Table XV, an example of this Sheet, is shown in Appendix C. The goal attainment for each child was rated on a four point scale[9] by each of the above. Each was asked to rate the behaviour concerned, carefully comparing it as it was during the two-week period of needs assessment to the behaviour as exhibited by the child during the three days of evaluating goal attainment, which followed investigator and trained assistants to accomplish this, each spent one hour in each of the classes on a rotating basis according to a prearranged schedule, over a period of three days. Each teacher was asked to observe the specific behaviour over the three days and to make her rating at the end of the third day.

In this way, there were four separate ratings on the goal attainment achieved by each child. These were compared, establishing reliability for the judgements made by each individual. Table VII compares the per cent of agreement between teachers and observers for each group when there was a difference in ratings of 1.5 or less, 1.0 or less, and less than 1.0. In calculating the agreement, the teachers' ratings were compared with the mean ratings of the observers.

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[9] Key for rating goal attainment

1 - behaviour unchanged, no noticeable difference
2 - small noticeable positive change in behaviour
3 - quite an improvement in behaviour
4 - behaviour greatly improved (as described by goal)

TABLE VII

PER CENT AGREEMENT BETWEEN RATINGS OF TEACHERS AND MEAN RATINGS OF OBSERVERS AT THREE LEVELS

| Difference Between Ratings | Group A | Group B | Group C |
|---|---|---|---|
| 1.5 or less | 82.35 | 94.4 | 94.0 |
| 1.0 or less | 82.35 | 86.1 | 90.0 |
| less than 1.0 | 58.82 | 52.7 | 64.0 |

The agreement for the ratings of the three observers over the three groups was 67.02 per cent when at least two observers rated the behaviour and 66.6 per cent when all three observers rated the behaviour. Table VIII shows a comparison of the agreement between the three observers for each group when there was a difference in ratings of 1.0 or less.

TABLE VIII

PER CENT AGREEMENT BETWEEN RATINGS OF OBSERVERS FOR EACH GROUP

| Number of Observers | Group A | Group B | Group C |
|---|---|---|---|
| 2 | 60.0 | 46.87 | 91.6 |
| 3 | 73.3 | 46.15 | 89.47 |

Calculation of Goal Attainment Value

In calculating the goal attainment values, consideration was given to the possibility that the observers could see one or more subjects exhibiting behaviour that was unusual and not characteristic of him. Yet the observer would base his rating on the observation of this behaviour. It was felt, then, that giving the teachers' rating fifty per cent weighting would counteract this.

The data obtained consisted of four separate ratings on each goal listed for each subject. In calculating a goal attainment value for each goal, the teachers' rating was weighted fifty per cent, with the ratings of the three observers providing the remaining fifty per cent.

Four categories of goal attainment were devised ranging from No Significant Improvement to Goal Achieved. The mean attainment value range for each category is depicted in Table IX.

## V INSTRUMENTATION

Behaviour Rating Scale

1. General: The behaviour rating scale was a method devised for recording behavioural observations. The technique was based on the idea that specific observable behaviours can be stated and that the applicability of these statements can be rated in order to yield specific behavioural

TABLE IX

CATEGORIES OF GOAL ACHIEVEMENT

| Category | Range of Goal Attainment Value | Description |
|---|---|---|
| I | 1.0 to 1.74 | Goal not achieved - no significant improvement |
| II | 1.75 to 2.49 | Minimum achievement - minimum improvement |
| III | 2.50 to 3.24 | Moderate improvement |
| IV | 3.25 to 4.0 | Goal Achieved |

descriptions of the person being rated.[10]

For this particular study, it was felt that rather than select any one scale, it would be more useful to design an instrument containing items thought to yield the most helpful information. Rutter's Child Behaviour Rating Scale was utilized for this purpose.

2. Rutter's Child Behaviour Rating Scale: This scale presents a series of descriptions of behaviour and asks the rater to check each statement in one of three columns contingent on its applicability to the person being rated. Rutter presents evidence that the scale has good retest and inter-rater reliability. It has also been found to be an efficient screening device for children with emotional and behavioural disorders.[11]

3. Behaviour Rating Scale: The instrument used in this investigation was composed of some of the relevant items from the Rutter's Child Behaviour Rating Scale discussed above. The scale in its final form consisted of a number of statements descriptive of behaviour. The statements were divided into the following categories: (i) General Behaviour; (ii) Classroom Behaviour; and, (iii) Behaviour During Recess. In addition to this, there was space provided to indicate the type of response

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[10] Robert H. Woody, Behavioural Problem Children in the Schools, Recognition, Diagnosis, and Behavioural Modification, (New York: Appleton-Century-Crofts, 1969), pp. 56-58.

[11] Ibid

generally elicited from others by the subject. At the end of the scale, space was made available for an annecdotal description of the student. The scale is reproduced in Appendix A.

Copies of this scale were given to the three teachers involved in this study and each was asked to complete a copy for each child in her room. Each statement was to be rated as (i) not applying, (ii) applying somewhat, or (iii) certainly applying. The scale was administered twice, first during the needs analysis and, second, following the termination of the experimental programme.

It was felt that this scale would yield information on the social and emotional status of each child, indicating specific behavioural needs. This data could then be used to provide part of the information for consequent goal setting.

It was not felt necessary to establish any test-retest reliability or inter-rater reliability for this instrument in the study. Each subject was being rated by only one person, his teacher. Since it was the classroom behaviour that was being dealt with in this study and since the teachers had spent eight months prior to this investigation with the students in the classroom situation, it was believed that their rating would provide the most accurate information.

# VI ANALYSIS

The techniques used in the analysis of the data were very simple. Basically the technique of analysis was to compare directly the proportions of goals attained by each group. Since the number of goals per student varied from individual to individual, appropriate inferential statistics were not available.

As described earlier, each goal was rated on a four point scale of goal attainment. An overall rating of goal attainment was computed by finding the mean rating after giving the teachers' ratings a weight of fifty per cent. This was done to minimize the affect that any unusual or non-characteristic behaviour would have on the ratings of classroom observer. In actuality, as seen in Table VII, the observers and teachers were in almost complete agreement in their ratings of goal attainment, with the rating of only eighteen per cent of the goals in group A and six per cent of the goals in group B and group C differing by more than 1.5. Table X shows the proportions of goals for each group falling in each category of attainment.

# CHAPTER IV

## ANALYSIS, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

### I INTRODUCTION

This chapter presents the data resulting from this investigation. Section II is an analysis of this data and deals with the testing of the hypotheses. Section III presents a discussion of the results; Section IV and V present the conclusions and recommendations respectively.

### II ANALYSIS OF DATA

An intergroup comparison of goal attainment is made in Table X. The figures represent the per cent of the goals in group A, B, and C falling in each of the four categories of goal attainment.

Table X reveals that in group A only a small proportion of goals fell into the low levels of goal attainment (Category I). There was no goal attainment at high levels in group B. Groups B and C both showed a similarity in per cent of low level (Category I) goal attainment. Group A, in comparison with group C, showed a higher goal attainment in Categories III and IV. In general, however, there was a low per cent of fully attained goals.

#### Testing the Hypotheses

The hypotheses established in Chapter I were tested by simply comparing the proportion of goals falling in each category of goal attainment.

TABLE X

INTER-GROUP COMPARISON OF GOAL ATTAINMENT

| Group | LEVEL OF GOAL ATTAINMENT | | | |
|---|---|---|---|---|
| | I[2] | II[2] | III[3] | IV[4] |
| A | 10.810 | 37.837 | 37.837 | 13.513 |
| B | 65.116 | 34.884 | | |
| C | 68.421 | 14.035 | 12.281 | 5.263 |

[1]Goal not achieved.
[2]Minimum achievement.
[3]Moderate improvement.
[4]Goal achieved.

A Chi Square test of independence would not have been valid because of the low expected frequencies in some cells, and because the observations in the various cells were not independent.

1. Hypothesis One. The proportion of goals attained by experimental group A will exceed that attained by control group B.

As shown in Table X, the results of the investigation were that a greater proportion of the goals in group A did fall in the categories of high level goal attainment than in group B. Hypothesis One was accepted.

2. Hypothesis Two. The proportion of goals attained by control group B will exceed that attained by control group C.

As revealed in Table X, there were fewer goals in group B falling in the categories of high level goal attainment, than in group C. Hypothesis Two was rejected.

3. Hypothesis Three. The proportion of goals attained by experimental group A will exceed that attained by control group C.

Table X indicates that there was a larger portion of the goals in group A falling in the categories of high level goal attainment, than in group C. Thus hypothesis Three was accepted.

# III DISCUSSION

It is felt that a number of factors may have had a bearing on the findings in the analysis. Such explanations are discussed under the following headings: (i) goal setting procedure; (ii) differences in the groups of students, and, (iii) difference in teachers.

## Goal Setting Procedure

It is possible that the goal setting procedure was invalid, and produced goals which were unattainable. This factor may have been present but it seems likely that its contribution was minimal. The fact that only ten per cent of the goals in group A failed to show at least marginal achievement indicates that most goals set were attainable. It is assumed that this was so for each group because of the similarity of students, needs, and goals in each group. Types of goals and their distribution in the groups are shown in Table XI.

The duration of the programme might have been a factor. Goal setting might have been too ambitious as far as estimating the time required for goal attainment.

The goal setting procedure may have produced goals which were not measurable. The presence of this factor seems possible but its effect is considered minor as observers obviously discriminated among the groups when evaluating goal attainment; furthermore, there was general agreement among observers about goal attainment even though many of the goals were not stated in specific, behavioural terms. The possibility of observer

TABLE XI

TYPES OF GOALS IN EACH GROUP

| DESCRIPTION | Number of goals | | |
|---|---|---|---|
| | Group A | Group B | Group C |
| 1. Goals having to do with co-operating with others. | 0 | 0 | 2 |
| 2. Goals having to do with exercising self control. | 8 | 21 | 17 |
| 3. Goals having to do with increasing positive social contacts. | 10 | 5 | 20 |
| 4. Goals having to do with reactions to situations. | 8 | 10 | 12 |
| 5. Goals having to do with immature behaviour. | 11 | 7 | 6 |
| TOTALS | 37 | 43 | 57 |

bias seems low, and particularly, a halo effect did not seem present because group C's goal behaviour was rated better than that of group B, this being opposite to the expected result.

Differences in Groups

It is felt that there were no differences between the groups in their ability to achieve the goals set. The assumption can be made that, given valid goal setting procedures which produced goals based on the individuals within the group, the groups would all be similar with respect to their ability to attain these goals at the beginning of the study.

Differences in Teachers

Differences in teachers may have contributed to the results as revealed in the analysis. The assumption was made in this study that all three teachers had similar ability to carry out programmes to achieve student goals in the social-emotional realm with children at this level. However, there were differences in teachers such that the experimental conditions may have interacted with the differences and caused differences in goal attainment between the three groups.

In groups A and C, this interaction was probably minimal since the teachers of these two groups seemed to be very similar in training and experience. (See Table VI)

However, the teacher of group B had less teaching experience, but

more education than the teachers of groups A and C. Like the others, her classroom was observed and goals were set for her students. It is possible that she failed either to understand the goals, or to interpret properly the standards for goal achievement. She may have tended to expect too much when goals were not specific and behavioural, and thus have rated herself too low. Also, she may have been quite threatened because of her lack of classroom experience and underrated her goal attainment because of a perceived threat from the ratings of the observers. This could explain her generally lower level rating of goal achievement. It is possible, too, that she did not achieve as much in the classroom. It should be remembered that she had no previous teaching experience, and her course work in the area of special education was similar to that of the other teachers in this study, although she had the edge in knowledge of psychology and had received more general academic training.

Group C as a Base Line

Group C did show behavioural improvement even without the aid of a programme for goal attainment. It can be postulated that the results in group C represent a normal maturational process, and, therefore, that the differences observed between these results and those of groups A and B are due to some planned intervention rather than to normal maturation.

This assumption, however, depends upon the representativeness of the teacher of this group. This was impossible to evaluate as it is not known how effective or ineffective this teacher was relative to all other special education teachers.

The assumption also rests on the further assumption that the halo effect was not a factor in this study. The possibility exists, however, that the experimental conditions could have had a positive influence on the motivation of the teacher of group C. A halo effect may also have operated for the teacher of group A; and if so it was a desirable feature of the experiment. It may have been present in group B and there is evidence to suggest that it could have been negative. As can be seen in Table XII, the teacher of group C was the only teacher giving higher ratings of goal attainment than did the raters. This gives substance to the possibility of a positive halo effect in that group.

Discussion of Hypothses

Hypothesis One: The data showed the goal achievement in group A to be superior to that of group B. The following are offered as possible reasons for these results. (i) The programmes suggested by the investigator, assistance provided by the investigator in the execution of the programmes, and frequent interactions between the investigator and teacher, may have been factors which operated in group A and were absent in group B. (ii) Another reason might have been that the teacher of group A appeared to be a more effective teacher than the teacher of group B. (iii) Thirdly, there was the possibility that the teacher of group B rated goal attainment according to different standards than the teacher of group A, either because of a misunderstanding of rating procedures, or because she felt threatened in the rating situation. (iv) Another possibility was that the teacher of group B perceived a threat in the teaching

TABLE XII

A COMPARISON OF MEAN GOAL ATTAINMENT AS RATED BY TEACHERS AND MEAN GOAL ATTAINMENT AS RATED BY OBSERVERS

| | Group A | Group B | Group C |
|---|---|---|---|
| $\bar{X}$ Teacher Rating | 2.38 | 1.44 | 1.70 |
| $\bar{X}$ Observer Rating | 2.62 | 1.77 | 1.52 |

situation which actually resulted in poorer than expected performance.

Hypothesis Two: The results show that goal achievement in group A was better than goal attainment in group C. The following are possible factors involved. (i) As for Hypothesis One, the presence of teacher-investigator interaction in group A and not in group C may have been a factor. (ii) If a halo effect were present in group C, it would, if positive, diminish differences between actual goal attainment between group A and group C; or if negative, would enhance the differences. It is assumed, however, that halo effects were about the same in each group. (iii) Unknown differences between the teachers of these two groups may also partially account for differences in results. However, this was not considered to be a major factor.

Hypothesis Three: Goal achievement in group C was greater than goal attainment in group B. Factors that may have been involved in obtaining these results are as follows. (i) Differences between the teachers' ability which could possibly be related to teaching experience. (ii) It was possible that there existed an interaction between the treatment and the teacher of group B, posing a threat which resulted perhaps in lower teacher ratings of goal achievement and possibly also lower teaching performance. (iii) Another reason for this effect may have been differences in the experimental treatment for each of these groups. In general, perhaps, goal setting without further support would be threatening to all teachers, resulting in a reaction similar to the apparent reaction of teacher of group B. This possibility is noteworthy. (iv) It can be

postulated that another factor involved in this result is the effect of the ratings of the teacher of group C. As can be seen from Table XII, the teacher of group C was the only teacher who rated goal achievement higher than the ratings of the observers. The effect of this would be considerable, taking into account that the teacher's rating was weighted fifty per cent. (v) Further along these lines, Table XII also shows a tendency of the part of the observers to rate goal attainment lower decreasing from A to C. It is possible that either this was an accurate rating of actual goal attainment in each group, or this was due to the influence of expectations. It was felt that if expectations were a factor it operated only for the investigator and not for the two other observers, and thus its effect was minimized. (vi) One factor not previously considered or controlled for was the degree of integration with or isolation from the children in the regular classes either during class periods or play periods such as recess or dinner. It is recalled that two children in group C were going to regular class for a least one subject. Burden found that in the Newfoundland schools he surveyed, educable mentally retarded students who were not placed in special education programmes but stayed in regular classes, obtained slightly higher social maturity scores than those who were placed in special education programmes.[1]

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[1] Melvin Burden, The Efficacy of Special Class Placement for the Educable Mentally Retarded as Indicated by Measures of Academic Achievement and Social Adjustment. (Unpublished Master's Thesis, Memorial University of Newfoundland, St. John's, Newfoundland, August 1971).

## IV CONCLUSIONS

From the above discussion and results of the analysis it can be concluded that for the purpose of attaining social-emotional goals for the educable mentally retarded child, the procedures used with group A are preferable and produce more positive results than either of the procedures used with group B and group C.

The effect of goal setting alone, as was done with group B, is difficult to assess in this experiment because of the strength of competing hypotheses in explaining the findings. There is evidence that the effect is less than the effect of the full programme, and possibly that the effect is negative. It is, perhaps, contingent on the characteristics of the teacher involved. Goal setting alone may be anxiety provoking for some teachers and inhibit the teacher's conducting herself (himself) in ways which would lead to social-emotional adjustment in educable mentally retarded children.

## V RECOMMENDATIONS

1. There is a need to define more closely objectives of special education classrooms and, in particular, to determine if social-emotional objectives are appropriate, as only this will justify further research and development in the area.

2. The procedures used in the present study should be refined with a view to ultimate, wide-scale implementation.

(a) Refinement of need assessment and goal-setting procedures.

(b) Refinement of goal assessment procedures.

(c) Identification of common needs and programme packages which will meet these needs.

(d) Development of teacher inservice training to reduce the reliance on outside observers and specialized personnel in all aspects of the programme.

3. Further research is desirable into the effects of goal setting only on teachers' behaviour.

4. Research is required into modes of interaction of specialized personnel with teachers based on personal characteristics of teachers such as length of teaching experience and type of training.

5. Research is needed into the effect of part time integration of special education students with regular class students.

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## APPENDIX A

### BEHAVIOUR RATING SCALE

Below are a series of descriptions of behaviour often shown by children. If the child definitely shows the behaviour described by the statement, place a cross on the line in column 3. If the child behaves somewhat according to the statement but to a lesser extent or less often, place a cross on the line in column 2. If, as far as you are aware, the child does not show the behaviour, place a cross on the line in column 1. Please show one cross for each statement.

NAME: _____

| General Behaviour | 1 Doesn't Apply | 2 Applies Somewhat | 3 Certainly Applies |
|---|---|---|---|
| Truants from school. | | | |
| Not much liked by other children. | | | |
| Often worried; worries about many things. | | | |
| Irritable. Is quick to fly off the handle. | | | |
| Often appears miserable, unhappy, tearful, or distressed. | | | |
| Has twitches, mannerisms, or tics of the face or body. | | | |
| Frequently sucks thumb or finger. | | | |
| Frequently bites nails or fingers. | | | |
| Tends to be absent from school for trivial reasons. | | | |
| Is often disobedient. | | | |

General (cont'd)

| | | | |
|---|---|---|---|
| Tends to be fearful or afraid of new things or new situations. | ____ | ____ | ____ |
| Fussy or overparticular child. | ____ | ____ | ____ |
| Often tells lies. | ____ | ____ | ____ |
| Has stolen things on one or more occasions. | ____ | ____ | ____ |
| Has had tears on arrival at school or has refused to come into the building this year. | ____ | ____ | ____ |

Classroom Behaviour

| | | | |
|---|---|---|---|
| Very restless. Often running about or jumping up and down. Hardly ever still. | ____ | ____ | ____ |
| Squirmy, fidgety child. | ____ | ____ | ____ |
| Often destroys own or other's belongings. | ____ | ____ | ____ |
| Has poor concentration. | ____ | ____ | ____ |
| Noisy in class. Talks out inappropriately. | ____ | ____ | ____ |
| Recites or reads in front of class. | ____ | ____ | ____ |

Behaviour During Recess

| | | | |
|---|---|---|---|
| Frequently fights with other children. | ____ | ____ | ____ |
| Tends to do things on his own - rather solitary. | ____ | ____ | ____ |
| Bullies other children. | ____ | ____ | ____ |

Behaviour During Recess (cont'd.)

| | | | |
|---|---|---|---|
| Behaves appropriately in a group with peers. | ____ | ____ | ____ |
| Plays with others. | ____ | ____ | ____ |
| Alone or isolated from others. | ____ | ____ | ____ |

Responses from Others (Peers)

| | | | |
|---|---|---|---|
| No response. | ____ | ____ | ____ |
| Attention. | ____ | ____ | ____ |
| Praise. | ____ | ____ | ____ |
| Compliance. | ____ | ____ | ____ |
| Disapproval. | ____ | ____ | ____ |
| Non compliance. | ____ | ____ | ____ |
| Physical reaction - positive. | ____ | ____ | ____ |
| negative. | ____ | ____ | ____ |

Use the space below to write an anecdotal description of this child. Be as brief as you like or include as much as you like.

# APPENDIX B

## SOCIOGRAM

A seven question sociogram was devised with the hope of obtaining information on the social structure of the classrooms, which could be helpful in setting social goals. It was administered individually to each child in the investigation by the investigator and two trained assistants on the final day of the needs analysis period during the regular observation time. Because it was not possible to obtain a separate place to which each child could be brought to answer the questions, the sociograms were given in the special education classrooms. Each teacher co-operated in this effort by engaging the class in some quiet activity at one end of the room leaving the other end free for administering the sociogram. Each child was seen individually and it was arranged that he have his back turned toward the rest of the class eliminating any visual distractions. If the child showed no, or only partial, understanding as the question was asked, a story which included the situation involved in the question was described in order to facilitate the child's comprehension. The questions asked are listed on Table XIII.

It was noticed by the investigator and also reported later by two trained assistants that the children appeared to have difficulty answering the questions. It was possible that the three answers to each question could have been the same for all questions except the last one. However, most of these children seemed reluctant to repeat themselves in this manner. Most did not seem to understand that they did not have to give a different

TABLE XIII

SOCIOGRAM

1. Of all the other children in your class, who is the person you would most like to play a word game with you?

1. _____ 2. _____ 3. _____

2. Who in your class would you most like to share your crayons with?

1. _____ 2. _____ 3. _____

3. Who in your class would you most like to go for a walk with?

1. _____ 2. _____ 3. _____

4. Who in your class do you like most to spend your recess time with?

1. _____ 2. _____ 3. _____

5. If you were asked to choose a class leader, who would you choose?

1. _____ 2. _____ 3. _____

6. Who in your class would you choose to help you put your rubbers on?

1. _____ 2. _____ 3. _____

7. Who in your class would you least like to play with?

1. _____ 2. _____ 3. _____

NAME: _____ GROUP: _____

answer each time. They also appeared to have difficulty in understanding what was required of them in order to give three names in answer to each question. They were very hesitant as though they could not remember the names of their classmates. When long periods were spent trying to think, it was suggested to them to turn around so that they could see the class and 'remember' their answer. When they turned to look, it was usually the case that one of the other children would catch the movement and turn to look and grin with anticipation or remembrance. It was usally this child's name which was given as the reply. Confusion and lack of understanding was also evidenced when names given for question one through six were also given in response to question seven.

In view of these observations, it was felt that children of this age and intellectual capacity did not have the ability to understand what was required of them for such a task. Therefore, the information yielded from the administration of the sociogram was considered invalid and was not used in any way for social-emotional need analysis. It was unnecessary to readminister it during the post-testing to assess degree of goal attainment.

It seems that this instrument cannot be used directly with these children, however, it is possible that in future research with similar children some information regarding the social structure of their classrooms may be obtained by using a sociogram type of instrument but having the teacher fill it out for each child, answering as she thinks the child would respond.

# APPENDIX C

## EXAMPLE FROM EXPERIMENTAL GROUP A

The following is a detailed account of the procedures as applied to one case. A subject from group A is used as an illustration as all steps in the procedure were applied in group A. All subjects in group A were treated in the same manner. Treatment of subjects in group B and group C differed as indicated by the flow chart of procedures depicted in Table I.

### Needs Analysis

Subject: E - 5
Age: 11 years - 2 months
I.Q.: 51
M.A.: 5 years - 7 months
Sex: Male

The above information was obtained from an information sheet (an example of which is shown in Table XIV) filled in by the teacher prior to the observation period.

### (a) Behaviour Rating Scale.

A Behaviour Rating Scale completed by the teacher indicated that this child's behaviour was often characterized by the following descriptions.

| Description | Category |
|---|---|
| Often worried about many things | Emotional |

| Description | Category |
|---|---|
| Tends to be fearful or afraid of new things or situations | Emotional |
| Has poor concentration | Emotional |
| Not much liked by other children | Social |
| Often tells lies | Social |
| Frequently fights with other children | Social |
| Tends to do things on his own, rather solitary | Social |
| Bullies other children | Social |
| Alone or isolated from others | Social |

(b) Observations.

Three observers spent one hour a day on a rotating basis in the three classrooms from April 26 to May 6. Interpretations of the significant observations on this child were the following:

(i) Finds work difficult so doesn't concentrate well, distracted by anything.

(ii) Responds positively to attention (ignored mostly by others).

(iii) Lacks self-confidence.

(iv) Seems unsure of himself academically.

(v) Very timid.

(vi) Takes behavioural cues from others and responds accordingly.

(vii) When he does not know how to behave, he gets his response by watching what others do.

(viii) Doesn't want to differ from others, conforms to the extent that he will say he's finished work if others are but he isn't.

TABLE XIV

INFORMATION SHEET

Group: _____

Name:

Date of birth:

I.Q.:

Number of years in Special Education Programme:

M.A.:

Sex:

Cultural Background:

(ix) Needs encouragement, support, and reinforcement to build self confidence.

(x) Talks out a lot and interrupts (attention seeking).

Feed Back

The above information (that is data from the information sheet, Behaviour Rating Scale, and observations) was examined by the observers and the teacher.

Goal Setting

After a discussion of the above data, the following emotional and social needs were described. Goals were established for this particular child based on those needs.

The needs and consequent goals for this child are depicted in Table XV.

TABLE XV

EMOTIONAL AND SOCIAL NEEDS AND
CONSEQUENT GOALS FOR ONE SUBJECT FROM GROUP A

| EMOTIONAL | |
|---|---|
| Needs | Goals |
| 1. Increase emotional adjustment | 1. More pleasurable reactions from others |
| 2. Reduce anxiety | 2. Manifest no anxiety |
| 3. Increase attention span | 3. Increase length of concentration time from 5 to 15 minutes |
| **SOCIAL** | |
| Needs | Goals |
| 1. More social acceptance | 1. More positive reaction from others |
| 2. Increase social contacts | 2. More involvement with others in any activity |

Programme

Following the goal setting procedure, an interview was held between the investigator and the teacher to establish a programme designed

to achieve the behaviour as described by the goals for this child. The reinforcement used for this child was attention. If he did a task well he wanted everyone to know.

(a) Procedures to attain goals in emotional development. To accomplish the first and second goals, praise was given for even the smallest achievement. In academic work repetition of something he knew was used to give confidence. An example of this was giving him a daily review of his list of sight words in reading.

Any instances of good manners, such as sharing, were drawn to the attention of the class. Honest effort in any activity was commended.

With this child, alleviating anxieties was difficult because of his home situation. His mother despaired at his extremely slow academic progress and 'babied' him enough to hinder his emotional progress.

To increase attention span, the pupils were given their seat work and timed to see how long they would concentrate without bringing the work to the teacher to be corrected or stopping to talk to a class mate. At the end of the period they were told how long they had remained at their work without interruption. The next day the importance of being able to concentrate until the assignment was completed was discussed. Pupils were asked to see how long they could work without stopping. After the timing session each child compared his time to that of the previous day, and noted any improvement. In comparing his own times each day, the child received attention and praise from the teacher and his classmates. The emphasis

was placed on competing with his own times rather than those of another child.

Seat work used for this procedure was nearly always mathematics. This subject was found convenient because once the children understood the topic, they knew exactly what they had to do and could be left to work on their own. Most of them had not progressed far enough to do reading seat work alone.

(b) Procedures to attain goals in social development. The teacher's role in facilitating social development for this child was mainly to provide opportunities for group involvement during periods when more than one child was free for play. Children were encouraged to "join in" and "make friends" during such activities as games that required a team and informal chats following recess during which the children discussed their recess activities. Praise was given the children whenever they related information that indicated they were trying to play well with each other.

One drawback to this particular child's social acceptance was his size. Mentally he was one of the "little" boys but physically one of the "big" boys. However, towards the end of the year, he and two other boys in the class became very good friends and visited each other's homes frequently.

Assessment of Goal Attainment

(a) Observational Rating. Goal attainment was assessed by having

the teacher and the three observers rate behaviour (as specified in the statement of need and consequent goal) on a four point scale as shown in Table XVI. A summary of the rating outcomes is shown in Table XVII. Table XVIII shows the behaviour rating sheet used for this child.

TABLE XVI

GOAL RATING SCALE

| Value | Description of Change |
|---|---|
| 1 | Behaviour unchanged, no noticeable difference |
| 2 | Small noticeable positive change in behaviour |
| 3 | Quite an improvement in behaviour |
| 4 | Behaviour greatly improved (as described by goal) |

TABLE XVII

RESULTS OF RATINGS BY TEACHER AND THREE OBSERVERS

| Goals | Teacher's Ratings | | | Observers' Ratings | | | Total | Ave | Category |
|---|---|---|---|---|---|---|---|---|---|
| | i | ii | iii | 1 | 2 | 3 | | | |
| E-1 | 2 | 2 | 2 | 3 | 2 | 2 | 13 | 2.16 | II |
| E-2 | 2 | 2 | 2 | 4 | 3 | 4 | 17 | 2.83 | III |
| E-3 | 4 | 4 | 4 | 3 | 1 | 3 | 19 | 3.16 | III |
| S-1 | 2 | 2 | | | 1 | 3 | 8 | 2.0 | II |
| S-2 | 2 | 2 | | | 1 | 3 | 8 | 2.0 | II |

Degree of goal attainment was calculated by averaging the ratings for each goal. (A weight of 50 per cent was assigned to the teacher's rating. Reasons for this are outlined in Chapter IV.) This calculation yeilded a goal attainment value which enabled each goal to be placed in a Category of Goal Attainment (as described in Chapter III).

TABLE XVIII

NAME:

AGE:

I.Q.:

M.A.:

| NEEDS | GOALS | Degree of goal attainment 1 2 3 4 |
|---|---|---|
| **Emotional** | | |
| 1. Increase emotional | 1. More pleasurable reactions situations | ___ ___ ___ ___ |
| (Evidence: _____) | | |
| 2. Reduce anxiety | 2. Manifest no anxiety | ___ ___ ___ ___ |
| (Evidence: _____) | | |
| 3. Increase attention span | 3. Increase length of concentration time from to | ___ ___ ___ ___ |
| (Evidence: _____) | | |
| **Social** | | |
| 1. More social acceptance from others | 1. More positive reaction from others | ___ ___ ___ ___ |
| (Evidence: _____) | | |
| 2. Increase social contacts | 2. More involvment with others in any activity | ___ ___ ___ ___ |
| (Evidence: _____) | | |

(b) Behaviour Rating Scale. The Behaviour Rating Scale was readministered and filled in by the teacher during the week following the conclusion of the programme. Although this instrument was not used in the calculation of a goal attainment value, it was used comparative purposes as a check on the consistency of the teacher's ratings.

Conclusions

As can be seen from Table XVII showing a summary of the goal ratings for this child, the goal achievement values for three of the five goals fell in Attainment Category II indicating a minimum improvement in behaviour. The remaining two goals fell in Category III indicating moderate improvement.