THE EFFECTS OF A STRUCTURED AND NONPERMISSIVE PLAY THERAPY PROGRAM ON A GROUP OF PROFOUNDLY AND SEVERELY RETARDED CHILDREN

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CHAPTER I

INTRODUCTION

Although the area of mental deficiency has been described in the past as a forgotten field of psychology, there has been far more work in psychotherapy and play therapy with mentally defective children than with any other single group of exceptional children (6).

The studies utilizing a play therapy approach appear, for the most part, to be confined to the higher level retardates. Studies utilizing play therapy with the severe and profoundly retardate are especially conspicuous by their absence from the literature.

One of the main reasons for the lack of play therapy and other programs among the severely and profoundly retarded children can be traced to the use of the Intelligence Quotient as a primary criterion for training programs that encourage or permit learning (10, 12). Far too often the differences in mentality as measured by intelligence tests, are the dominant diagnostic and prognostic clue to failure or success in a developmental program. Instead of using intelligence as the criterion for program admittance, intelligence should be viewed only as a frame of reference. Rosenzweig and Long (20) suggest that although an individual's
score indicates his rate of growth, and helps to determine
the starting point for an organized program, the prognosis
should remain tentative until the child has been given
sufficient opportunity to prove to everyone's satisfaction,
how he will use the potential that he does possess.

According to Rosenzweig (19), a proposed program
should not use intelligence as a criterion, but should be
based on the following five questions:

1. Will the child be able to do more things for
   himself?
2. Will the child be happier than he was?
3. Will the child be easier to get along with?
4. Will the child speak better?
5. Will the child's coordination be improved?

If there is a chance of improvement in any of the five
areas, the program is an acceptable and worthwhile program.

Another reason that has contributed to the lack of
developmental programs for the profound and severe retardate,
is the characteristics that are generally associated with
retardation.

In the area of learning capacity, the retardate's imag-
ination is confined to everyday things; they tend to repeat
the same patterns of activities over and over; they tend to
experiment less with new things; they do not carry through
with the tasks; they perform very poorly with abstract
materials.

The severely and profoundly retarded children generally
exhibit gross motor disabilities and maladaptive behavior;
these motor disabilities, combined with the limited learning capacity and maladjusted behavior, have often caused the therapist to look upon treatment or therapy with these retardates as a futile endeavor. Many of the programs which have been tried with severes and profounds have failed, not because of the characteristics of the retardates, but because of the preconceived idea of failure on the part of the therapist.

Middelton (15) said that when working with the severely retarded child, the instructor should think of the children as those who are capable of learning something and then try to find out what this something is.

Many of the programs that have been developed for use with the severe and profound child have tended to concentrate on only one segment of the developmental problem (2, 18). Play therapy, as used here, has taken all developmental areas into consideration. The values of play as a therapeutic technique for aiding the development of the severe and profound child are as follows:

1. Physical Value. Active play is essential if the child is to develop his muscles properly and exercise all parts of his body. It also serves as an outlet for surplus energy which, if pent up, makes the child tense, nervous, and irritable.

2. Therapeutic Value. Play is therapeutic. It acts as a catharsis for the elimination of pent-up energy. In
everyday life, the child needs some release from the restrictions that have been imposed upon him by his environment. Play not only helps him to release his emotional tensions, but it provides an outlet for needs and desires which cannot otherwise be met.

3. Educational Value. Through his play with toys of all types, the child learns to know the shapes, colors, sizes, and texture of objects as well as their significance.

4. Social Value. By playing with other children, the child learns how to establish social relationships with others, and solve problems that such relationships bring.

5. Moral Value. Play is one of the most important factors in moral training. The child learns what is accepted and what is not accepted in the group situation.

Statement of the Problem

The primary problem of this study was to determine the effect of a modified, structured, and basically non-permissive play therapy program upon the intellectual, social, and behavioral level of a group of profoundly and severely retarded children.

Hypotheses

The following hypotheses were examined:

1. The subjects will demonstrate a significant difference, at the .05 level, in mental age scores when the pre-test results are compared to the post-test results.
2. The subjects will demonstrate a significant increase in social functioning when pre-test results are compared with the post-test results, as measured by the Vineland Social Maturity Scale, are compared.

3. The subjects will demonstrate significantly less adverse behavior and hyperactivity than they showed previous to the play therapy program.

Limitations

The population from which the subjects were drawn was limited to the Denton State School, Denton, Texas.

The study was also limited in that all the subjects were females.

Definition of Terms

Mental Retardation. The American Association of Mental Deficiency defines Mental Retardation as follows:

Mental Retardation refers to sub-average general intellectual functioning which originated during the developmental period, and is associated with an impairment in adaptive behavior, i.e., maturation, learning, and social adjustment (7, p. 837).

Profound Retardation. The profoundly retarded individuals are those retardates who, because of very severe mental deficiency, are unable to be trained in total self care, socialization, or economic usefulness, and who need continuing help in taking care of their personal needs.
Such individuals require almost complete care and complete supervision throughout their lives, since they are unable to survive without help.

Vernon L. Nickell, Superintendent of Public Instruction, State of Illinois, states that in general, the profoundly retarded children require

1. Assistance in dressing, undressing, toileting, and eating throughout their lives.
2. They require protection from dangers of all types and description.
3. They are incapable of learning to participate socially with others.
4. They develop at less than one-quarter the rate of the average child.
5. They have inadequate speech and language is either absent or limited to a few elementary words or phrases (17, p. 3).

From a quantitative viewpoint, the profoundly retarded child falls within the zero to twenty-five range of intellectual functioning.

Severe Retardation. Quantitatively, those retardates classified as severely retarded, fall with the 25-50 range of intellectual functioning. The mentally handicapped children classified as severely retarded are those that are developing at such a slow rate that they are unable to profit from the program of instruction for the educable mentally handicapped, but who have potentialities for learning self care, and some social adjustment (9, p. 48).

Nickell lists the following characteristics of such children:

1. They are capable of eventually learning self care in dressing, undressing, eating, toileting, keeping clean, and in other necessary skills which will make them independent of their parents in the regular routines of living.
2. They are capable of learning to get along in the family and in the immediate neighborhood by learning to share, respect property rights, and in general to cooperate with their families or with the neighbors.

3. They are capable of learning to assist in chores around the house or in doing a routine task for some remuneration in a sheltered environment and under supervision.

4. Their mental development is approximately one-quarter to one-half that of an average child.

5. They are generally not capable of learning academic skills such as reading and arithmetic beyond the rote learning of some words or simple numbers.

6. Their speech and language abilities are distinctly limited.

7. They can eventually learn to protect themselves from common dangers.

8. They will require some care, supervision, and economic support throughout their lives (17, p. 3).

Play Therapy. In the traditional sense, play therapy is a therapeutic technique based upon the fact that play is the child's natural medium of self-expression. It is an opportunity which is given to the child to "play out" his feelings and problems just as, in certain types of adult therapy, an individual "talks out" his difficulties (1). It is usually permissive and non-directive in structure.

Play therapy, as used in this study, differs from the traditional meaning as follows:

1. It is directive in form. It is not, as is Axline's (1), based upon the assumption that the individual has within himself, the ability to solve his own problems.

2. It is basically nonpermissive. Malloy (14) states that a permissive program will not work with the severe and
profound retardates, for they are not able to assume responsibility for themselves.

3. It is a learning situation. The child is taught to play with toys, not in order to "play out" his feelings and problems, but to provide a medium for release of tensions and to aid in social and motor development.

Related Literature

It is sometimes assumed that play therapy with the severely and profoundly retarded child is inadvisable because of his limited insight and poor verbal comprehension. On the other hand, Carlson and Gingland (4) have shown that most severely and profoundly retarded children like to play, and when they did they not only had fun, but usually developed physically, mentally, and socially beyond the realm of general expectations.

Studies by Bell (3) have shown that play techniques, utilized on the profoundly and severely retarded, provided social relations, reduced anxiety, and restored to the child those elements of growth which they had previously been denied.

Along the same line, Zigler (25) found that just the removal of the severe and profound retardate from the confining and strict atmosphere of the ward, to a more relaxed, non-pressuring, nonanxiety producing environment in which the children received more individual attention, led to a
significant increase in the individuals' social, mental and verbal abilities.

Munday's (16) studies have led her to the following belief as to the role of play therapy:

Most institutional children seem to have suffered inadequacies and disturbances in the most crucial development stages, either through maternal deprivation, physical handicaps, or the restricted opportunity of institutional life; mostly all three conditions prevailing and being interrelated. The needs of this kind of child are therefore very primitive, direct, and practical. The need for physical and social contact is very great. These needs can be adequately met through an individual or group play therapy situation (16, p. 3).

Maisner (13) described the use of play therapy with fifteen children, between eight and thirteen, referred for bad behavior or indications of maladjustment noted in psychological testing, as a part of a general personality re-educative program at the Wayne County Training School. The personality difficulties presented were varied, including autistic-schizoid adaptations, negativisms, destructiveness, hyperactivity, and aggression. The children had been in residence from one month to three years; I.Q.'s ranged from forty-one to eighty-six. Each child was seen for a minimum of six individual play therapy contacts, and most were seen for additional individual or group play.

The play therapy program was considered to have been quite successful on the basis of test results and progress reports from cottage workers. Maisner stated that
"... every one of the fifteen children ... has shown some major indication of improved adjustment (13, p. 249)."

Munday (16) reported on her work with children certified as severely retarded at the Fountain Hospital. In one experiment two matched groups were used: the experimental group consisted of fifteen children who received non-directive therapy from nine months to a year; the control group of children, ten in number, received only the regular services of the hospital. After one to one and one-half years period, the treated group increased in social behavior and showed a significant increase of seven I. Q. points. In another experiment, eight physically disabled children were treated after an initial control period. A performance test was used to measure I. Q. changes. Following therapy, a significant increase of twenty-two I. Q. points was observed as compared with a change of two I. Q. points following the control period.

Skeels and Dye (22) reported a study in which thirteen children with an I. Q. range of thirty to eighty-five were placed on wards where they received more individual attention. After a period of one and one-half years they reported an increase of I. Q.'s which averaged 27.5 points over the I. Q.'s before the program.

Leland (11) conducted a study on a group of post-nursery male retardates, using group play therapy procedures. Upon termination of the study the subjects showed a
significant change in their behavioral level, as was reported by supervisors and others who observed the children.

In a study utilizing play, Sessoms (21) concluded that not only does play help to develop hand and eye coordination, but the interaction of the retardate with an adult constitutes a reinforcing agent to learning to a socially deprived mentally retarded child.

Positive changes in behavior were reported by Woodward, Siegel and Eustes (24) following two years of group play therapy. The authors concluded that psychogenic factors were related to the retarded development shown by the children. It was found that the children with less marked psychotic features showed more favorable response to the total program. The children were referrals to a pediatric service and showed uneven maturational rates and delayed speech. All but one showed some schizoid characteristics. The overall impression of the group is that it consisted of severely retarded children with complicating emotional factors. The children were all overconcerned about themselves, fears were common, and their participation in group activities was limited. After two years of participation in group play activities, the activity level and aggressiveness had increased. Participation in group play activities had developed to a level of about one year below chronological age. The children were more responsive, less guarded, less fearful, and overcautiousness had decreased.
A few other studies utilizing group or individual play therapy techniques are as follows:

1. Heiser (8), using individual psychotherapy with fourteen subjects over a one year period, reported little increase in I. Q. However, the majority showed an improvement in behavior and adjustment.

2. Thorne (23), working with thirty males and thirty-eight females, reported a 66 per cent improvement over a two year period.

3. Cotzen (5), using group therapy with nine boys, reported initial improvement of behavior for each one. After an interval of time a re-evaluation indicated continued behavioral changes, some positive and some negative.

In evaluating the relatively few available published reports of play therapy with the severely and profoundly retarded child, several critical comments seem necessary. A very high percentage of these reports are descriptions of the course of play therapy with one or, at the most, several handicapped children. Studies involving more than ten or twelve subjects are few, and most are lacking in rigorous control and objective evaluation. The comparative absence of data plus the need for information, produces a situation in which speculation may be confused with fact.
CHAPTER BIBLIOGRAPHY


CHAPTER II

METHOD

Subjects

The subjects consisted of twenty-two profoundly and severely retarded girls between the ages of seven and sixteen. The twenty-two subjects had a mean chronological age of 12.7 years, a mean mental age of 18.13 months, a mean intelligence quotient of 14.1, a mean social age equivalence of 2.10 years, and a mean social quotient of 19.1. Table V, in the Appendix, describes each of the twenty-two subjects with regard to mental age (M. A.), chronological age (C. A.), social age equivalence (S. A.), social quotient (S. Q.), intelligence quotient (I. Q.), and etiology.

Although the subjects exhibited extremely poor muscular coordination and intellectual capacity, they were capable of understanding a minimum of what was said to them; they were capable of some degree of communication—by gestures if not by articulate speech—and they had some degree of muscular coordination which enabled them to grasp, gesture, and move about.

Procedure

A type of play therapy was devised to aid in the development of the severely and profoundly retarded child.
The play therapy situation was initiated on a structured and non-permissive basis. It was both structured and non-permissive because of the studies of Kirk (4) and Perry (5, p. 34), which reported that severe and profoundly retarded do not learn by imitation and observation, but must be taught to perform each task.

The subjects were evaluated with the Cattell Infant Intelligence Test and the Vineland Social Maturity Scale before the program began.

Due to the intellectual and physical limitations of the profoundly and severely retarded children, the program was structured around the following premises:

1. Well planned activities decrease the amount of unacceptable behavior.
2. Simple materials are of far more value than complex materials.
3. A program needs to be based on both the child's interest and those tasks which he can put to use elsewhere.
4. A variety of methods and materials will keep the child's attention and interest.
5. Obedience is a must; the child should know where he stands at all times.

The following materials were used in aiding the development of the retardates:

1. Two and three piece puzzles
2. Colored beads and string
3. Peg boards
4. Hammering sets
5. Lacing shoes
6. Building blocks
7. Walking boards
8. Jars and lids
9. Color pegs
10. Other educational aids functional at the nursery and pre-kindergarten level.

The first two weeks of the program was devoted to teaching the subjects basic commands such as "sit down," "no," "do not touch," etc.

The children were then, individually, taught how to play with certain toys. In this segment of the program, repetition played the important role. But when the child was seen to be losing interest in the task, he was allowed to wander around the room for five or ten minutes before being guided back to the task. The tasks that the child learned were repeated at the first of each session in order to reinforce the previous learning. Each child was instructed in this manner for thirty to forty minutes a day for three weeks.

Following the period of individual instruction, because of the limited space, the subjects were randomly assigned
to one of two groups. Each group received an hour and a half of therapy a day for eight weeks. During the group therapy sessions the program remained structured and non-permissive, but not to the degree that it had formerly been. During the group sessions, the children sat at one large table and were allowed to play with the toys of their choice. The instruction, while still helping the child learn how to use the toys, was devoted more to attempts at getting the children to interact and play peaceably with one another.

At the end of the thirteen week period the children were again tested, and their pre-test results were compared with the post-test results.

Collection and Analysis of Data

The information that was needed to provide an evaluation of the program was obtained in three ways.

First, the children were pre-tested and post-tested by means of the Cattell Infant Intelligence Form (1). The Cattell was picked as one of the evaluation instruments because of its inclusion of a number of items which are indicators of the development of large muscle control, and also its inclusion of a large proportion of items of a personal-social nature.

The second procedure for collection of data was through the use of the Vineland Social Maturity Scale (2). The
dormitory supervisors acted as informants for the needed data.

Although the scores obtained on the Vineland, due to the fact that a third party supplies the information, are apt to vary to a considerable degree from test to test, it was felt that the information that could be obtained made its use worthwhile.

To minimize error, the same dormitory supervisors acted as informants on the pre-test and post-test evaluations.

The items on the Vineland Scale that were of main interest were those pertaining to progressive maturation in self-help, locomotion, communication and social relations.

The third way that data was obtained was by the behavior adjustments as they were observed by the investigator.

In analysis of the data, a t-test for comparative groups was computed between the differences in social age, mental age, social quotient and intelligence quotient, as obtained in the pre-test as compared to the results obtained in the post-test evaluations.

Test Instruments

The major test instrument employed for evaluation purposes was the Cattell Infant Intelligence Test (1).

Psyche Cattell used the Gesell Developmental Schedules (3) as a starting point and, in order to make the scale as much of an intelligence test as possible, eliminated over
100 items that were thought to be related to home training or muscular control.

The Cattell scales measure the infant from birth to two years. It was constructed to constitute a downward extension of the Stanford-Binet, Form L. The test form can, due to the inclusion of Stanford-Binet, Form L. items, be used to measure through four years. The method of scoring is the same as with the Stanford-Binet. Groups are provided at each month from two to twelve, at two month intervals in the second year, and at twenty-seven and thirty months. There are five items at each level. The correlations between Cattell scale I. Q. ratings in infancy and the Stanford-Binet I. Q. ratings with the same children at thirty-six months are low. As the age increases, the coefficients increase and are superior to those found with other scales (1).

The second test instrument was the Vineland Social Maturity Scale (2). In regard to the evaluation of the functioning of the young child, Doll (2, p. 23) says, "The scale provides a definite outline of detailed performances in respect to which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward ultimate independence as adults." The scale items are arranged in order of increasing average difficulty and represent maturation in such areas as self-help, self-direction, locomotion, occupation, communication, and social independence. The scale
is standardized for use at age levels from birth to twenty-five. There are 117 items in the scale and each has been given a categorical designation such as self-help general, self-help eating, self-help dressing, self-direction, occupation, communication, locomotion, and socialization.
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CHAPTER III

RESULTS AND DISCUSSION

Results

The data were gathered and analyzed according to the procedures outlined in Chapter II. The results tend to support the hypothesis that mental age, social age, intellectual, and social quotient increases by the use of a modified play therapy program. Only one profoundly retarded failed to meet pre-test requirements, but instead of being replaced the subject was retained in the program.

To determine the validity of the hypothesis a t-test for comparative groups was correlated between pre-test results and post-test results. The critical level of significance adopted was $p = .05$. The following formula was used:

\[
t^2 = \frac{(Na + Nb - 2) (Nb \sum Xa - Na \sum Xb)^2}{(Na + Nb) (NbLa + NaLb)}
\]

where

- $N =$ number of subjects
- $\sum Xb =$ sum of the Nb results in post-test
- $\sum Xa =$ sum of the Na results in pre-test
- $\sum X^2a =$ sum of the squares of pre-test
- $\sum X^2b =$ sum of squares in post-test
- $\sum X^2 = \sum X^2a + \sum X^2b$
It was hypothesized that all subjects combined would demonstrate a significant difference in mental age scores between pre-test and post-test results. Table I contains the statistical data relating to the first hypothesis.

**TABLE I**

**SAMPLE SIZE, SAMPLE VARIANCE AND CRITERION MEAN FOR MENTAL AGE CORRELATIONS ON THE CATTELL INFANT INTELLIGENCE SCALE**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Sample Size</th>
<th>Sample Variance</th>
<th>Criterion Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>Na 20</td>
<td>Sa = 1.44</td>
<td>19.4</td>
</tr>
<tr>
<td>Post-Test</td>
<td>N₉ = 20</td>
<td>Sₚ² = 2.26</td>
<td>23.7</td>
</tr>
</tbody>
</table>

The pre-test and post-test results presented in Table I, when correlated by means of a t-test for comparative groups, yielded a ratio of 3.01. The ratio of 3.01, with degrees of freedom of df = 40, is significant; at the level of confidence of p = .01. Table VI, in the Appendix presents the pre-test and post-test mental age results and differences for each subject.

I. Q. increases between pre-test and post-test Cattell results were tabulated for reference purposes. Table II presents a summary of the findings.
TABLE II
SAMPLE SIZE, SAMPLE VARIANCE, AND CRITERION MEAN FOR INTELLIGENCE QUOTIENT ON THE CATTELL INFANT INTELLIGENCE SCALE

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Sample Size</th>
<th>Sample Variance</th>
<th>Criterion Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>Na = 20</td>
<td>Sa² = 60</td>
<td>14.8</td>
</tr>
<tr>
<td>Post-Test</td>
<td>Nb = 20</td>
<td>Sb² = 24</td>
<td>18.0</td>
</tr>
</tbody>
</table>

A t-test correlation between pre-test and post-test results yielded a ratio of 1.87. A t-ratio of 1.87 is significant at the level of confidence of p = .05. The t-ratio indicates that a significant increase in I.Q. probably took place between the time of administration of the pre-test and post-test. Table VI, in the Appendix, presents the test results and differences for each subject.

The second hypothesis indicated a significant increase in social function would occur as a result of the study. The hypothesis was tested with the Vineland Social Maturity Scale, which was administered before and after the program.

The data necessary for t-test correlations for determining the significance of social age increases are presented in Table III. Individual results and differences are given in the Appendix, Table VII.

T-test correlations between pre-test and post-test results, resulted in a t-ratio of 2.79. The t-ratio of
2.79 is significant at the level of confidence of \( p = .01 \).
The results obtained in the social age correlations tend to confirm the second prediction.

**TABLE III**

**PRE-TEST AND POST-TEST DATA FOR DETERMINATION OF SOCIAL AGE DIFFERENCES**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Sample Size</th>
<th>Sample Variance</th>
<th>Criterion Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>Na = 21</td>
<td>( S_a^2 = 62 )</td>
<td>2.10</td>
</tr>
<tr>
<td>Post-Test</td>
<td>( N_b = 21 )</td>
<td>( S_b^2 = 42 )</td>
<td>5.90</td>
</tr>
</tbody>
</table>

The social age results and differences for determination of significance of difference, for each subject are presented in the Appendix, Table VII. These individual differences show a positive increase in scores for each subject.

A Social Quotient was also calculated from test results obtained on the Vineland Social Maturity Scale. The sample means, sample variances, and criteria means obtained from pre-test and post-test results are presented in Table IV.

**TABLE IV**

**MEANS AND SAMPLE VARIANCES FOR CORRELATION OF SIGNIFICANT DIFFERENCE IN SOCIAL QUOTIENTS**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Sample Size</th>
<th>Sample Variance</th>
<th>Criteria Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>Na = 21</td>
<td>( S_a^2 = 10.0 )</td>
<td>19.1</td>
</tr>
<tr>
<td>Post-Test</td>
<td>( N_b = 21 )</td>
<td>( S_b^2 = 6.01 )</td>
<td>23.4</td>
</tr>
</tbody>
</table>
The correlation between pre-test and post-test Social Quotients yielded a $t$-ratio of 3.53. A $t$-ratio of 3.53 is significant at the confidence level of $p = .01$. Table VII in the Appendix shows the pre-test and post-test results and differences obtained by each subject in terms of Social Quotients. It was noticed that all subjects, with one exception, reported positive increase in the post-test results as compared to pre-test results. The one exception that revealed a decrease in scores, showed a decrease of only .03.

The third hypothesis predicted a significant decrease in negative behavior, and a decrease in the hyperactivity level that was observed in the majority of the subjects. The more significant behavioral modifications that occurred, are pointed out in the following comparisons:

1. When the program was initiated, the high activity level exhibited by the majority of the subjects made control of the situation a difficult task. The subjects, due to the high activity level, were unable to remain in one place for a very long period of time. It was necessary to lock the doors in order to keep the subjects in the general proximity of the program. In contrast, at the termination of the study most of the children were able to remain seated and play for the better part of the hour-and-a-half sessions.

2. When the children were first introduced to the toys they almost immediately destroyed them. In the first few weeks of the study approximately fifty or sixty toys
were damaged beyond repair. In comparison to the first weeks, there were only fifteen to twenty toys destroyed in the last few weeks.

3. It appeared at the beginning of the study that the only interaction between subjects occurred as an intent to produce physical harm. Although the subjects were in a group, there was no interaction in any way; it was as if the child were all alone. At the end of the program the children still had little interaction on their own, but they would sit together and on one occasion bounced a ball around to each other.

4. Probably the most significant behavioral change observed was that reported by the Lunch Room Supervisor. The Supervisor reported that the children would sit at their tables and when the food trays were brought out and passed around the subjects no longer fought over them or grabbed for them, but actually just sat and waited.

On the basis of the preceding observations contrasting past and present behavior, it appears that the behavior differences were significant.

Discussion

It was previously suggested that many educators, psychologists, and other professional personnel have tended to base program admittance on the basis of I. Q. scores. The results obtained in the present study would seem to cast
doubt upon that position. All measurements used in the evaluation of this study showed significant changes between pre-test and post-test scores. The results obtained lend support to the studies of Carlson and Gingland (3) and the positive results of play that were obtained by them. Support is also apparent for the studies of Bell (2), Zigler (7), and Munday (5) in regard to the use of groups, the use of relaxed, nonpressuring atmospheres, and the use of physical and social contact in working with profound and severe retardates. This study is by no means considered as a finality in the argument between those who advocate the use of I. Q.'s as the criterion for program admittance, and those who wish to do away with the use of I. Q. The study is basically an attempt to provide evidence that the severely and profoundly retarded children do not have to be considered as custodial retardates per se. This is not to imply that the severe and profound retardate is able to be rehabilitated and taught to lead anything resembling a useful life; for due to his physical and intellectual limitations he will always be in custodial care. Although he will never lead a "useful" life, he can be taught some things that will make him happier and more secure.

The most important aspect of this study was not that the testing instruments showed significant differences, but that Rosenzweig's (6) criteria for a good program could be answered "yes" in four out of the five criteria. His fourth
criterion, speech improvement, could not be answered positively.

A question arises at this point as to the validity of the results obtained. It is recognized that there are two main sources of limitations and criticisms.

The first source lies within the measuring devices utilized for data collection.

The Cattell Infant Intelligence Scale is constructed as the name implies, for infants, and is therefore heavily weighted with tasks requiring manipulative and coordinative skills. At the same time, it will be noted that play situation was also a developmental learning program, in which the development of coordination and manipulative abilities received a large amount of attention. There is a great possibility that the post-test results were enhanced by the developmental training that the children received. Although this is a valid criticism it must be remembered that it is not the significant difference in test scores that is important, it is the fact that they were able to better develop their coordination and manipulative skills.

The use of the Vineland Social Maturity Scale can be criticized on the grounds of its reliability. The major limitation of the Vineland is its dependency upon a third person to provide the needed information. The exactness of the information provided is never known, all that can be hoped for is that a person's biases and prejudices do not enter in.
The second limitation and source of criticism is the absence of a control group. Studies by Cleverdon and Rosenzweig (4) and Alper and Horne (1) provided evidence that the Mental Ages, Social Ages, and I. Q.'s of severely and profoundly retarded individuals tend to remain stable over long periods of time when they are not placed in any type of program to aid their development.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

SUMMARY

The present study was developed to investigate the value of employing a structured and nonpermissive play therapy program with the profoundly and severely retarded children. The primary objectives were based on Rosenzweig's criteria for determining the value of a program. The objectives were (1) to determine if the child would be able to do more things for himself; (2) to see if the child would be happier than previously; (3) to notice if the child would be easier to get along with and present less of a behavior problem; (4) to see if the child would show an improvement in speech; (5) to ascertain if the child would exhibit better coordination after the program.

It was hypothesized that, on the basis of pre-test and post-test results, the children would demonstrate a significant increase in mental age scores. It was predicted that the children would demonstrate a significant increase in social functioning, which was determined on the basis of Social Age and Social Quotient scores from pre-test and post-test results. It was further hypothesized that the subjects would demonstrate significantly less adverse behavior and that there would be a decrease in hyperactivity exhibited by the subjects.
On the results obtained in the t-test correlations between pre-test and post-test results, hypothesis I was confirmed. The results demonstrated that a significant increase, at the .05 confidence level, had occurred.

The correlations between the Social age scores obtained on pre-test and post-test Vinelands showed that a significant increase, at the confidence level of .05, was obtained. The differences between social quotients obtained on the pre-test, and those obtained on the post-test, were also significant at the level of .01. The third hypothesis, dealing with behavioral differences, was considered to be significant on the basis of the differences observed in pre-test behavior, as to those observed during the latter part of the study.

The program combined the essential values inherent in a child's play; the nonpermissive and structured psychotherapeutic technique advocated by Kirk (1), and by Perry (2); plus a learning situation which involved the use of toys. All subjects were first given individual instruction and then placed in a group and instructed in how to play. The retardates were chosen from the population of The Denton State School, Denton, Texas, on the basis of (1) previous classification as to the degree of retardation, and (2) the subjects' residence in the same dormitory. The subjects consisted of twenty-one severely and profoundly retarded
females, who had (1) a mean chronological age of 12.7 years, (2) a mean mental age of 18.13 months, (3) a mean I. Q. of 14.1, (4) a mean social age equivalence of 2.10 years, and (5) a mean social quotient of 19.1.

The results of the present study were contradictory to those who advocate the use of I. Q. as the criterion of program acceptance, and tended to support the values of play presented in the introduction. They also lent support to those studies advocating the need of programs designed to aid the severe and profound retardate.

The significant results obtained in this subject are larger than those reported in the literature. Besides the criticism and limitation of this study that were reported in the discussion, a few other reasons that may possibly provide an explanation for the differences are as follows:

1. The majority of other studies had an average of ten or twelve subjects while the present study had a total of twenty-one subjects.

2. The amount of time spent in actual play situations was much longer per session, and also was of longer duration in terms of sessions given.

3. More important, while the other studies conducted the programs on the average of one session per week, the present study was conducted every day of the week for four months. It is possible that this consistency and short time
span between presentation led to the larger increases. This is possible because of the decreased time allowed for forgetting.

Conclusion

This study is thought to be of significance for the following reasons:

1. It provides results demonstrating the worth of providing programs for the severe and profound retardate.

2. It tends to cast doubt upon the I. Q. approach to program feasibility.

3. Despite limitations in the method, it provides a set of guidelines for future programs and research.

It is recommended that future research in this area make use of a control group, a different set of test instruments, and a more objective method for the determination of behavior change.
CHAPTER BIBLIOGRAPHY


## APPENDIX

### TABLE V

**CLASSIFICATION OF SUBJECTS AS TO CHRONOLOGICAL AGE, MENTAL AGE, SOCIAL AGE, INTELLIGENCE, SOCIAL QUOTIENT, AND ETIOLOGY**

<table>
<thead>
<tr>
<th>Ss</th>
<th>CA</th>
<th>MA*</th>
<th>SA**</th>
<th>IQ</th>
<th>SQ</th>
<th>Etiology</th>
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<td>15</td>
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<td>Brain Damage</td>
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<td>***</td>
<td>13.9</td>
<td>Brain Damage</td>
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<td>Brain Damage</td>
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<td>21.4</td>
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<td>17.5</td>
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*MA reported in months.
**SA reported in years.
***Unable to test.
## TABLE VI

INDIVIDUAL TEST SCORES AND DIFFERENCES ON THE CATTELL INFANT INTELLIGENCE TEST

<table>
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<tr>
<th>Ss**</th>
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<tr>
<td>E.B.</td>
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</tr>
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<td>K.B.</td>
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</tr>
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<td>O.B.</td>
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<td>M.B.</td>
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<td>26.00</td>
</tr>
<tr>
<td>C.D.</td>
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<td>26.00</td>
</tr>
<tr>
<td>D.D.</td>
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<td>29.20</td>
</tr>
<tr>
<td>D.H.</td>
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<td>27.00</td>
</tr>
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<td>L.H.</td>
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</tr>
<tr>
<td>E.L.</td>
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<td>12.20</td>
</tr>
<tr>
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<td>25.00</td>
</tr>
<tr>
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</tr>
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<td>T.N.</td>
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<td>C.T.</td>
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<td>K.W.</td>
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</table>

*MA months.

**Ss subjects.

***Unable to test.
TABLE VII

INDIVIDUAL TEST SCORES AND DIFFERENCES ON THE VINELAND SOCIAL MATURITY SCALE

<table>
<thead>
<tr>
<th>Ss*</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Difference</th>
<th>Pre-test</th>
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<td>0.83</td>
<td>15.90</td>
<td>29.70</td>
<td>3.80</td>
</tr>
<tr>
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<td>2.80</td>
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<td>0.10</td>
<td>35.20</td>
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</tr>
<tr>
<td>O.B.</td>
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<td>0.32</td>
<td>15.30</td>
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</tr>
<tr>
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<td>0.60</td>
<td>22.00</td>
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<td>5.00</td>
</tr>
<tr>
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<td>0.50</td>
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*Ss, subjects.
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