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THE THEORIES OF JEAN PIAGET - WHAT THEY MEAN FOR SPECIAL EDUCATION

AN EDUCATIONAL PROGRAM: PLANNING, IMPLEMENTATION, AND RESULTS

THE EFFECT OF SELF-RECORDING AND VERBAL PRAISE ON THE READING COMPREHENSION RATE OF AN EIGHT YEAR OLD MALE

A Seminar Paper

Presented to

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Suzanne Weekly

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THE THEORIES OF JEAN PIAGET - WHAT THEY MEAN FOR SPECIAL EDUCATION

ABSTRACT I

Suzanne Weekly

The purpose in this paper was to review the literature on the theories of Jean Piaget as they relate to special education. A basic overview of Piaget's theory of intellectual development is presented. Included are his ideas of adaptation, assimilation, accomodation, and equilibrium. Highlights of each of the four stages of intellectual development are included. Current research and implications of the research for special education is explored. The problems of the curriculum disabled child as they relate to learning disabilities are covered. Individualizing programs for children on the bases of intellectual developmental level is seen as a positive effect of a Piagetian program.

AN EDUCATIONAL PROGRAM:

PLANNING, IMPLEMENTATION, AND RESULTS

ABSTRACT II

Suzanne Weekly

Public Law 94-142 states that an individual educational program for students with exceptional educational needs is required. Individual educational goals and objectives are selected by a group effort of teachers and specialists involved with the child's education. This educational program was planned for an eight year old girl who had specific academic and social behavioral deficits.

The child was placed in a self-contained class for behavior disordered children. Completion of many basic objectives was obtained although it was found that the child moved through the program at a slower rate than anticipated.

THE EFFECT OF SELF-RECORDING AND VERBAL PRAISE ON THE READING COMPREHENSION RATE OF AN EIGHT YEAR OLD MALE

ABSTRACT III

Suzanne Weekly

The effects of the use of self-graphing and verbal praise on reading comprehension of an eight year old boy is examined here. Reading comprehension, as measured by percentage correct of comprehension questions, increased when the subject began to graph his own reading comprehension. The results of the study indicate that reading comprehension was significantly affected by self-graphing.

TABLE OF CONTENTS

PAGE

THE THEORIES OF JEAN PIAGET - WHAT THEY MEAN FOR SPECIAL EDUCATION. 1

Understanding Piaget's Theory of Intellectual Development. 2
Conservation 11
Research-Implications of Piagetian Research to Special Education. 12
What Piaget's Theory Holds for Special Education . . 15
REFERENCES. 20

AN EDUCATIONAL PROGRAM: PLANNING, IMPLEMENTATION, AND RESULTS 22

PLANNING. 23
Statement of the Educational Problem 23
Assessment of Present Educational Performance. . . . 25
Assessment of Generalized Learning Repertoires . . . 28
Findings of the Multidisciplinary Team 32
IMPLEMENTATION. 33
Implementation of Placement Decision 33
Prioritizing Goals 37
RESULTS 38
Presentation of Data 38
Discussion 38
Recommendations. 39

THE EFFECT OF SELF-RECORDING AND VERBAL PRAISE ON THE READING COMPREHENSION RATE OF AN EIGHT YEAR OLD MALE 41

METHOD. 42
Subject. 42
Materials. 42
Procedure. 42
RESULTS 43
Discussion 43
Summary. 44
REFERENCES. 47

APPENDICES 48

TABLE OF FIGURES

PAGE

THE EFFECT OF SELF-RECORDING AND VERBAL PRAISE ON THE READING COMPREHENSION RATE OF AN EIGHT YEAR OLD MALE

FIGURE 1. Baseline I Taken Over a Six Day Period. . . 45

FIGURE 2. Sample of Comprehension Questions 46

THE THEORIES OF JEAN PIAGET - WHAT THEY MEAN FOR SPECIAL EDUCATION

Suzanne Weekly

The past decade has seen a phenomenal growth of interest in the work of Jean Piaget. This interest has spread among psychologists, psychiatrists, pediatricians, sociologists, philosophers and is now of particular interest to educators and most recently special educators. The purpose in this paper is to explore that interest as it relates to special education. What do the theories and works of Jean Piaget have to offer special educators?

The body of knowledge in this area is not vast and has only been minimally explored by a few researchers. Part of the reason for this may lie in the remarks offered by David Elkind in his book, Piaget and Education. "Piaget is not an educator, nor is he principally concerned with problems of education" (1970, p. 105). In its primary intent, Piaget's work has been philosophical, designed to provide a theory of knowledge. Practical designs of his work are minimized. Piaget provides a frame work from which to view educational problems, practical applications are left totally up to the educators. The theories of Piaget, then, are left up to interpretation of a sometimes varied and confusing sort. In order to understand what Piaget has to offer special education, it is necessary to understand some of his theory. The main

body of Piaget's work is concerned with the theory of intellectual development.

Understanding Piaget's Theory of Intellectual Development

Jean Piaget was born in 1896 in Nêuchatel, Switzerland. After completing undergraduate study in biology, he received his doctorate in Philosophy. He later became interested in psychology, although never received any formal training. He developed a theory that intellectual development consisted of various stages. His works gained notoriety in the United States in the 1920's and 1930's. During this period, Piaget's own three children were born. Piaget and his wife, a former student of his, became close observers of their own children's behavior. The results of their study covers the sensorimotor period from birth to two years of his theory of intellectual development. Piaget's study of infancy convinced him that thought derived from the child's action not from his language, a premise that prevades all of his later work.

Piaget's theory divides intellectual development into four major periods: sensorimotor, lasting from birth to two years; preoperational, from two to seven years; concrete operational, seven to eleven years; and formal operational, eleven years and above. The following sections will deal with the four major periods as they relate to Piaget's orienting attitudes or theoretical framework. Several basic ideas shape Piaget's approach to the study of intellectual development (Ginsberg & Opper, 1969). These ideas span all four levels or stages of cognitive development.

To Piaget, intelligence involves biological adaptation, equilibrium between the individual and the environment, gradual evolution and mental activity (Ginsberg & Opper, 1969). Piaget's theories do not describe the average level of cognitive functioning but rather the optimum capability of thought at a given level in development.

Adaptation is for Piaget the essence of intellectual functioning. Piaget's concept of adaptation deals with modifying the environment to our own ends. Individuals organize all sensations and experiences into some kind of order and adapt to the surroundings. Adaptation consists of twin processes which go on simultaneously, assimilation, the taking in process, and accomodation, the outgoing adjusting process (Pulaski, 1971). Piaget uses the example of a child learning language to explain this concept. The young child listening to the language around him begins to imitate what he hears. At first he babbles, "da, da and mamma" in an attempt to approximate the sounds he hears. He has assimilated the language and now in an attempt to accomodate his own language to fit that pattern, babbles responses. As he continues to accomodate his words become more and more like what he has heard. Gross approximations of "da,da" become Daddy as he adapts to the language requirements of his environment. One of the basic requirements of Piaget's theory involves the balancing of assimilation and accomodation to achieve equilibrium. It is this process that stimulates the child to achieve higher levels of cognitive functioning. This is how the child learns. The child achieves equilibrium at each stage in his development. Piaget stresses both experience and physical maturation as a basis for

development. As cognitive structures develop, the child uses them. A child cannot think as an adult because he does not have the logical structures or the organization of thought. A child's mind is not a blank slate for Piaget. The child has a host of ideas about the world which differ from an adults and are expressed in a different linguisitic mode (Elkind, 1974). One cannot teach calculus to a five year old says Piaget, because he does not have the structures of thought to assimilate it. As the child grows and matures physically, so he does mentally. He does this by experiencing his world. He touches, smells, feels, and sees his environment and through the processes of assimilation and accomodation strives to project a balance or equilibrium in his world. Piaget insists that thoughts or "mental operations" arise out of motor and sensory experiences which are "interiorized." The child who has had physical experience with a concrete object such as a ball, can then form a mental image and act upon it in thought as he has in actual experience (Pulaski, 1971). A child who has never handled or thrown a ball will have an inaccurate or distorted mental image and is handicapped in his intellectual development.

So far, the process of adaptation has been reviewed as it relates to the twin processes of assimilation and accomodation resulting in equilibrium. The factors of maturation and experience lead a child to develop new levels of cognitive functioning. Piaget includes a third factor in the search for equilibration which he calls "social transmission" (Ginsberg & Opper, 1969). These are the verbal instructions transmitted by parents and teachers in the process of education. He believes that when a child

hears a challenging or contradictory statement, his equilibrium is disturbed. In the search for the answer a new level of cognitive functioning is attained. The solution to the contradictory or challenging statements vary from level to level. When a child is five he is satisfied with the idea that babies come from heaven. As he matures, and gains experience, he develops the idea that mommy and daddy produce a child. He continues to refine and modify his concept in response to his disturbed equilibrium until he develops a satisfying concept for his level of intellectual functioning. For Piaget, there is always an upward spiraling of cognitive development as a child passes through the stages.

Piaget identifies four major periods of cognitive functioning. The first, the sensorimotor period makes use of Piaget's naturalistic observations with his own children. For Piaget, complex cognitive structures are built from experiences at the sensorimotor level. "The child is locked in egocentrism at first. He is unaware of the world around him, conscious of only himself, the center of his own small universe" (Piaget, 1967, p. 39). During the first stage of the sensorimotor period the world is essentially 'something to be sucked.' From one to four months, the infant institutes learned or acquired adaptations. New behavior patterns are developed, first by trial and error. Then, around eight to twelve months, is the emergence of intelligent action for Piaget. It is at this stage in development that intentional behavior occurs. The child intentionally adapts to produce responses which he or she finds new or interesting. For example, if barred from

obtaining a toy by a box, the child at this stage would figure out a way of removing the box to get at the toy. The child has developed "object constance." He knows that objects exist in the enviornment even though they cannot be seen. Various patterns of purposeful behavior are repeated. The child thinks about or conceptualizes how he or she will do something without actually doing it.

Piaget stresses several concepts in this sensorimotor stage which provide the groundwork for the development of the other three stages in his theory. Piaget believes that each child must go through each stage of intellectual development at his own rate. The time sequences are individualized. Each child will arrive at a given stage in his own time. The age norms set by Piaget are only approximate (Ginsberg & Opper, 1969). Piaget stresses individual differences in timing of a stage. Each child possesses a complex set of characteristics due to physical maturation, and social environment, that become variables contributing to learning rate. A child born in the city will have a different set of life experiences from a child reared on a farm, therefore, he or she may arrive at a certain stage in intellectual development at a different time. Piaget's age norms are approximate, however, the ordering of the stages is absolute. A child must pass through one stage to achieve another and the reverse cannot occur. A stage cannot be entirely skipped. Development is a gradual process with each stage laying the groundwork for the next. Behaviors the child learns in the sensorimotor stage do not disappear with the preoperational stage. The child retains old abilities and adds to them. The processes of adapta-

tion are continually at work. The child obtains a balance or equilibrium at one stage and achieves a higher level of understanding when that balance is upset. The active infant seeks contact with his environment, he is both influenced by as well as influences it. Piaget's theory of "equilibration" includes the role of experience as was mentioned earlier.

The second stage in development is classified by Piaget as the preoperational period and occurs between the ages of two and seven years. Again, these age ranges are only approximations for a point of reference. The sensorimotor stage brought out several of Piaget's concepts including adaptation, equilibration, and the role of maturation and experience in intellectual development. The preoperational period brings out Piaget's theory of "operations" or the internal mental operations of the school age child. That the child must learn from doing, is a basic premise of Piaget's theory and is particularly important during this stage. "Knowledge is derived from action...to know an object is to act upon it and to transform it...to know is therefore to assimilate reality into structures of transformation and these are the structures that intelligence constructs as a direct extension of our actions" (Piaget, 1970, p. 7). The baby, in the sensorimotor stage, crawled after a toy to grab it before he could internalize the toy and picture it in his mind. A major achievement of this period for Piaget is the ability to deal with symbols. During early childhood the child learns to talk, the basis by which many of his own ideas will be altered. The child develops a mental symbol, for example "dog" to stand for the

real dog which is not present (Ginsberg & Opper, 1969). Piaget believes that mental symbols are formed through imitation. He also believes that a child must have experienced something in reality before he can achieve an accurate mental symbol for it. The adults mental symbols are not necessarily the same as a childs. The child distorts language to fit his own mental structure (Ginsberg & Opper, 1969). For this reason it is hard to get an accurate idea of what the child is truly conceptualizing. When we say to a two year old child "Grandma is coming to visit" and the child says, "Yes, she is coming on a plane" the language is accurate but the child's perception of what that means is vastly different from the adults. This concept is important to illustrate that before you can teach a child, you must learn to communicate with him at his own level of understanding.

The third stage of Piaget's theory includes the years four through eleven and involves several important concepts. For Piaget, a child below the age of seven years often fails to use speech as a vehicle for transmitting information to one another and instead, frequently repeats another's remarks or engages in individual or collective monologues (Opper, 1969). The concept of "vertical decalage" is important during this period. Decalage refers to a gap or lag. Piaget believes action is more advanced than verbal thought and that verbal thought lags behind action (Opper, 1969). What the child learns through action at age seven must be restructured on the plane of verbal thought at age eleven. The child learns to "decenter" his thought as he previously learned to "decenter" his action in the sensorimotor period. The child

learns to consider both his needs and the needs of others. The egocentric focus is exchanged for a widening of views to include the whole environment. Piaget distinguished four factors which influence cognitive development during this period. The first is maturation. Second is experience, first of a physical nature and later by direct observation. Learning, for Piaget proceeds from the concrete to the abstract. The third factor is "social transmission," or the acquiring of knowledge or instruction. Once a child has experienced a monarch butterfly by direct observation, it is then possible to communicate linguistically and pictorially with others about other butterflies. Equilibration, appears to be the fourth factor which influences cognitive development. A child begins with an inadequate strategy and evolves more complex strategies in an upward spiraling hierarchy (Opper & Ginsberg, 1969). A child uses a specific strategy before feeling dissatisfied. He then adapts or modifies this strategy until he is satisfied. The child is intrinsically motivated to learn by the feeling of equilibration. He innately possesses the ability and eagerness to learn. Piaget makes clear his feeling that verbal learning without direct experience is understanding which is superficial and "deforming" (Pulaski, 1972). The child in the third stage of cognitive development then, is described by Piaget in terms of concrete operational, meaning that the child can now operate in thought on concrete objects or their representations (Piaget, 1972). Thought to Piaget is still limited by concrete experience.

The fourth and final stage of cognitive development, called formal operations by Piaget, begins around age twelve. The adolescent's

thoughts are becoming more complex. He can transcend the world of the concrete and entertain the many possibilities of a situation (Ginsberg & Opper, 1969). A child is now able to solve problems in the abstract. Piaget was interested in his studies of these children from the standpoint of how thought differed from younger children rather than if an answer was correct. From his observations on how adolescents solved problems, Piaget formulated several general descriptions. When solving a problem, the adolescent makes reality secondary to possibility (Ginsberg & Opper, 1969). He imagines what might occur. The concrete-operational child is bound by things which are immediately perceivable. His actions are merely extensions of what is already in progress. The "formal operations" child is described by Piaget as the "describer-thinker"..capable of carrying out inferential thinking (Pulaski, 1972). Piaget stresses that in order to achieve this development of logical thinking, the child must be in the state of readiness. He rejects the idea that formal education imposes problem solving structure on children. He stated:

> Society does not act on growing individuals simply by external pressure, and the individual is not in relation to the social anymore than to the physical enrivonment, a simply tabula rose on which social constraint imprints ready-make knowledge. For, if the social milieu is really to influence individual brains, they have to be in a state of readiness to assimilate its contributions. (Inhelder & Piaget, 1959, p. 338).

The child not only has to have sufficient maturation but also the appropriate groundwork of experience to make adaptation to the abstract world possible. The process of equilibration is repeated at each

stage in development. The search for mastery precedes an achievement of balance. One cannot teach a five year old formal operations until preliminary cognitive structures have developed. The formal operational child is also capable of combining possibilities. When given a task of finding which of five chemicals produce the color yellow when mixed, the adolescent formulates combinations until the color is achieved. He conceives all possibilities and proceeds in a logical manner.

Development is continuous for Piaget. The processes of assimilation and accomodation are repeated over and over again until the child has attained an equilibrium or balance. In this section we have explored the basic theory of Jean Piaget, although he never meant for his theory to be applied to education, it naturally lends itself to this practice.

Conservation

Piaget's conservation experiments are his most well known and are now providing the bulk of on-going research in the area of learning disabilities - related to Piagetian theory (Pulaski, 1972). Piaget's theory of conservation also provides an important area for research studies into his theory of intellectual progression. Conservation, as viewed by Piaget, is the ability to realize that certain attributes of an object are constant, even though it changes in appearance. An example of an experiment demonstrating the conservation of length uses two identical sticks. When laid parallel to each other the child will state

that they are of equal length. But when one is moved ahead of the other, the preoperational child will maintain it's longer. "It's bigger because you pushed it," "That (unmoved) one is smaller because it doesn't touch there," said a five year old, pointing to the protruding end of the stick which had been moved. But, a seven year old responds, "They're still the same; they can't grow...they're always the same length and they'll always stay the same" (Piaget & Inhelder, 1960). Once a child has firmly acquired the logical structure, the mental understanding of the problem, he cannot be fooled by external physical appearances of the objects. "Once you know...you know for always" (Ripple & Rockcastle, 1964).

Research-Implications of Piagetian Research to Special Education

Research data provide much support for Piaget's basic ideas about sequential cognitive development: There is now little debate about the distinctiveness of Piaget's stages (Evans, 1974). Regular educators have been interested in the theories of Piaget primarily for preschool and early education. More recently research has been directed in the area of special education, most notably in the field of educating mentally retarded children. Although Piaget's developmental theory has not dealt with mentally retarded (MR) persons per se, his theory has been applied to that population by many researchers. Results of investigations into this application of Piaget's stage theory of development indicate that the stages of development of the MR child parallel those described by Piaget but appear at a later chronological period. Because

of the tremendous variability in cognitive MR task performance within IQ categories, identification of specific aspects of concept learning holds promise for enhancing the school performance of MR children through individualized instruction (Klein, 1977).

A University of New Orleans study done in 1977, of thirty educable mentally retarded students, ages 12-14 years, mental age 6-10.5, provides support for Piaget's position on the role of maturation in the acquisition of conservation. There was no significant difference found in the conservation scores of the experimental students having three training sessions and the controls who had had no previous training (LaCoste, 1977). A 1977 study done by Caplan dealing with thirty hospitalized psychotic children suggests that Piagetian developmental organization of mental processes hold even for severe abnormality as seen in these patients. Another study compared forty Trainable Mentally Retarded (TMR) children ages 8-19 and twenty normal children ages 3-6 performing mathematical tasks at the preoperational or transitional stages. Results indicated that concepts of one to one correspondence and seriation develop similarly for the two groups (Halpin, 1976). A study by Steele (1975) reviewed results of a longitudinal and comparative look at cognitive development in educably mentally handicapped children ages 12-16. Results over a 12 month period suggested that curriculum materials should be appropriate to the student's level of cognitive development, and that measures of developmental level provide more educationally relevant information than intelligence scores.

Research in the area of applying Piagetian theory to learning disabilities is sketchy at best. One study compared performance of Learning Disabled (LD) and normal children on Piagetian tasks of conservation. Results of this study indicated that the group of LD children had not achieved the level of conservation ability that was characteristic of normal children (Silvius, 1974). A study of LD and arithmetic achievement with children ages 9-12, yielded a high association between conservation tasks developed by Piaget to evaluate logical thought processes could prove a valuable tool in diagnosing arithmetic disabilities (McGlannan, 1977). A 1975 study (Kaleta) compared Piagetian seriation operations and sequencing skills in learning disabled and normal students. Findings of the study involving sixty LD and ninety normal students, 6-8 years old, indicated that a student's performance on the seriation tasks improved with age. The maturation lag hypothesis as an explanation for learning disabilities was also supported by lower seriation scores in LD children at each age level.

Each of the studies quoted has been done within the last five years. Many federally funded studies and research projects are currently being conducted with results expected in 1980. Replication and validation studies have included the sequences of logical operation appearance, the age at which children perform tasks on the basis of logical thought (concrete or formal), and the degree to which operations are generalized or interdependent (Ammon, 1969). The broad trends for a normal population are generally supported by data from a

variety of sources. The trend for special populations suggests that research will again support Piagetian theory as far as invariable sequence, however, time sequences appear to differ. As seen in learning disabled students there is a broad scattering in the sequence. Children may be at the level of concrete operations when working mathematical concepts and at the level of formal operations in language skills.

What Piaget's Theory Holds for Special Education

Although Piaget's theory was never primarily intended for use in education, many researchers and authors have drawn implications for regular education and more recently special education. Piaget, himself, addressed the problems of education in two papers entitled, "Science of Education and the Psychology of the Child" (1970), Piaget feels that many teachers are using out-dated educational methods, with their students sitting passively in classrooms listening, or not listening, to lectures which they find uninteresting and irrelevant. Instead of actively participating in activities which stimulate cognitive development, they are sitting idly by and find learning confined to a string of boring facts. Piaget points out that many educators have not clearly answered some very fundamental educational questions. What is the aim of teaching? Is it to pass tests and memorize facts? Or is it to be able to think creatively and innovatively? Piaget also addresses what educators should teach. What areas of knowledge should be part of the curriculum and at what level. To find the answer to what students find relevant, Piaget suggests retesting content areas after a time to

see how much and what information students retain. Constant research and reexamination of curriculum is demanded by Piaget. Elkind (1976) points out that the curriculum reforms of the 1960's opened another route for the discovery and appreciation of Piaget's work.

Curriculum builders in America found little information here about child development principles and were forced to look elsewhere. Piaget's extensive body of information offered curriculum builders information about how children understand the concepts of number, space, time causality, and much more. In an article Elkind (1977) addresses the problems of the curriculum disabled child. He states that "learning disabilities" are always a product of child-curriculum interaction. He believes that disabilities result when a child is introduced too soon to a concept or is given materials that are ambiguous or confusing. If we believe as Piaget, that children go through invariant stages of cognitive development, than the type and timing of curriculum introduction is crucial. Elkind believes that failure in school can be traced to several different factors. One is too early introduction of formal instruction. Children who fail to benefit from formal reading instruction in the first few grades, may be perceptually and cognitively too immature. Elkind (1977) also contends that early school failure is a significant factor, if not the primary cause, of emotional disturbance of children. If special educators hope to succeed in instructing children successfully then they must have a variety of curriculums available to use, geared to the child's developmental level. A developmental curriculum discussed by Piaget (1950), pertains to the

attainment of number, space, time, and causality in a predictable sequence. Elkind takes this concept of developmental curriculum one step further and includes the possibility of personalizing the curriculum to "enhance, defend, and maintain self-esteem and the sense of being a worthwhile person" (Elkind, 1976, p. 237). This type of a curriculum would improve, not destroy, a child's self-concept.

As noted in the research section, exceptional children develop Piagetian skills and concepts in basically the same sequences as normal children, the rate at which levels are achieved are different and the difficulty with which new skills are obtained differ (Kaleta, 1975; Cowan, 1978). Cowan stresses the individual differences of children's learning rates. "Concepts and structures are formed over a period of time" (Cowan, 1978, p. 328). Each child will progress at his own learning rate and the American way of hurrying a child through one level to get to another can only serve to frustrate and confuse a child.

Cowan (1978) suggests focusing on areas of intellectual competence as well as areas of difficulty. For example, if a child is not grasping abstract numeration concepts, it seems reasonable to drop back to a concrete level with more manipulative type tasks. Some students may not yet be ready to use symbolic numbers and operations. Attention must be paid to natural developmental sequences (Gander, 1979). Mary Gander brings up the role of Piagetian experience when instructing children. If a child has not experienced, for example, a prearithmetic skill at a manipulative concrete level, then learning in the abstract may be hard for him. Each child will come to a learning situation with a

different set of life experiences contributing to his cognitive level of functioning. The role of the teacher in this situation is to determine the developmental level of his or her students and find suitable instructional materials. Cowan (1978) suggests that from Piaget's point of view, materials should be structured one step above the child's predominant structural level. The material should be challenging to increase cognitive functioning, but not too frustrating. Cowan calls this the optimal mismatch. Turiel (1966) and Kuhn (1972) suggest in their studies that if materials are structured exactly where children are or a little below there will be little developmental change.

Cowan (1978) also deals with diagnosis and labelling of exceptional children from a Piagetian viewpoint. In discussing childhood psychosis, most commonly schizophrenia and autism, Cowan uses data to convey a description of psychosis as developmental dysfunction. That is, these children show long-lasting or possibly permanent imbalances between assimilation and accomodation. These children do not achieve a state of equilibrium again. Cowan is now in the process of testing this hypothesis empirically in order to discover how psychotic children could avoid chronic disequilibrium and vast fluctuations between stages. There is no Piagetian therapy for psychotic children as of yet. Cowan does believe that substituting the use of Piagetian measures of structural levels for traditional I.Q. measures would be beneficial for all developmentally disabled children. The focus should be taken off speed and replaced on skill. As shown in the research section, retarded children and adults can benefit from specific experience with Piaget

tasks (Vitello, 1973; Barnes & McManis, 1973). Cowan (1978) suggests that perhaps behavior modification, in providing a responsive environment for the child, may be the key to stimulate optimum disequilibrium in children. He believes institutions may inadvertentally support homogeneity and reduce feelings of disequilibrium so children fail to move cognitively through Piagetian stages. Since these children do not possess intrinsic motivation, reinforcement processes, behavioral learning approaches provide clear external motivation and feedback to compensate (Gander, 1979).

Lastly, both Gander (1979) and Cowan (1978) suggest that the role of the school and teacher must be reconceptualized. Teachers need to be aware of developmental levels and individualize to the needs of their students. Cowan suggests that this can only occur in a classroom where the teacher is not the sole dispenser of information and discipline (Cowan, 1978).

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AN EDUCATIONAL PROGRAM:
PLANNING, IMPLEMENTATION, AND RESULTS

Suzanne Weekly

Public Law 94-142 requires that each eligible handicapped child receive an education designed to meet that child's unique learning needs. The law further stipulates that these educational programs must be provided for handicapped children in the least restrictive environment possible. Central to the provision of a least restrictive environment for each child is the individual educational plan. "The Individual Educational Program required for each handicapped child is the central building block to understanding and effectively complying with the Act" (Abeson, 1977, p. 120).

As defined by Senate Bill 6 (1075) an individual educational plan is:

> a written statement of the specific educational services to be provided to such a child, and the extent to which such a child will be able to participate in regular education programs.

The purpose in this paper is to present an individual educational plan written for a child assigned to a self-contained emotionally disturbed classroom.

PLANNING

Statement of the Educational Problem

Identifying information.

Student Name Annie Achiever Birthdate 10/17/70 Sex F

Parents Name Mr. & Mrs. J. T. Achiever Occupation Farmer

Address R.R. 1, La Crosse, Wisconsin 54601 Age 8

Grade Emotionally Disabled Classroom

Teacher Mrs. The Best School Easy Elementary

Date of Evaluation 1/15/76

Description of child's past performance and referral information.

Annie's initial educational services were provided in a homebased program from January to June 1976. In the fall of 1976, Annie attended school for one hour at a time. Gradually her tolerance to the school setting increased. By February 1977, Annie remained at school from 8:30 a.m. to 2:30 p.m. and was transported on the school bus. Throughout the years Annie has been in the Early Childhood Study Center (ECSC) she has been under a physicians care for control of seizure behaviors and increasing her attention span. Annie was originally referred to the ECSC by Dr. Stephen Copps, Gundersen Clinic and Congregational Nursery School in hopes that a program would be developed tailor made to fit her needs. Annie is now too old chronologically for the ECSC program and a new placement had to be found for her for the 1978-79 school year.

When observed in the classroom, Annie is seen to flit from place to place unable to give prolonged attention, she requires close supervision

when performing a task. This intern observed her and collected data on several pin-pointed social and academic behaviors which are included on subsequent pages. When asked to follow a direction to go to a particular work area she seldom complies and needs physical direction to get there. Once seated, she will leave if unattended.

In the fall of the 1977-78 school year, Annie was expected to get from her bus to her classroom on the second floor independently. All of the ECSC staff knew the route Annie was to take, as each time she was distracted by an open door, etc., a staff member would verbally direct Annie to her room. In about a month the gentle uring previously required was no longer necessary. Instead Annie was choosing a friend to walk up to her classroom with her. By the second semester, she usually greeted the people she would meet in the hall and ask them what they were doing or show them something interesting that she was wearing. Once Annie reached her classroom, she usually had to be reminded to go to her locker and remove her coat and hang up her school bag.

Performance discrepancies - academic.

P - Knows letter names (sometimes).

E - Distar I Skills letter sounds, blend sounds to form words, rhyme words, match words.

P - Rote count to three.

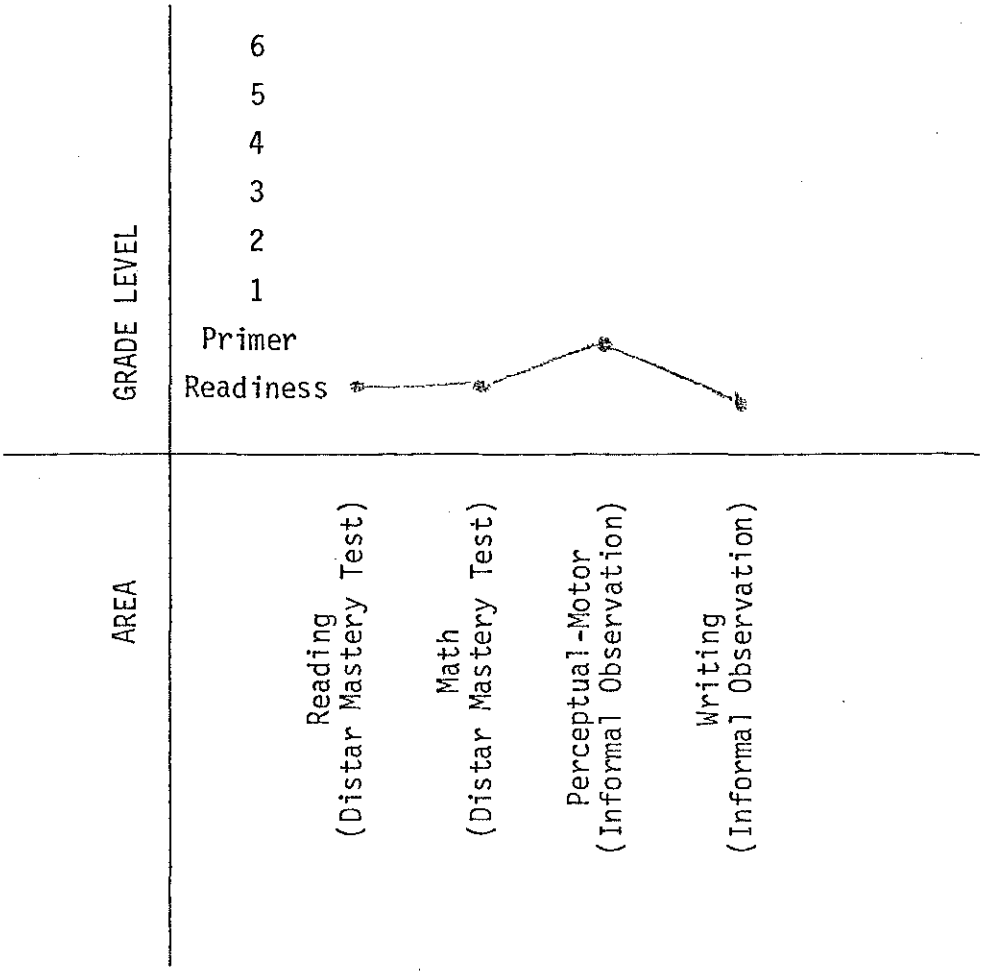
E - Pass Distar Mastery Tests 1-84 (Distar I Math Skills).

tracted easily by clothing the administrator was wearing, noises in the room. She was continually asking questions such as, "Can I work hard?" She perseverated on several of the items and it was difficult to get her going again.

The results of the Zimmerman et al. Preschool Language Scale (5/30/78) were: Auditory Comprehension Age 3-6 , Verbal Abilities Age 5-2 , Language Age 4-4 . The test administrator commented, "The test results may be an understatement of Annie's progress in the area of language in the last year." As stated on the previous test, Annie was functioning at a 3-1 level in Verbal Abilities and 3-2 Language age. Auditory Comprehension scores remain the same. The teachers working with Annie have observed improvement in the appropriateness of her expressive language. She consistently relates her comments to her environment.

The results of the Carrow Test for Auditory Comprehension of Language (5/3/78) were: Age Equivalency 3-2 . There is agreement between results of this assessment and that of the Zimmerman Preschool Language Scale. In the last year, there has been little or no change in Annie's comprehension skills, while her verbal abilities have improved markedly. Part of her poorer performance may be due to the necessity of consistent redirecting her to the test task prior to presentation of the stimulus and that she is easily distracted by her clothing and previously presented test items. Further, Annie maintains a nearly continuous monologue or dialogue with whomever she is with during an activity. This includes eating, working in the classroom, playing with peers.

Academic profile.



Social-behavioral assessment.

Informal observation and data collection shows that Annie's main behavior problems are being out-of-seat (80 percent of the time sample) and an inability to work independently (less than one minute when given a task). Annie does not participate in classroom activities unless physically restrained in her seat. She can be observed flitting about the room from group to group, seldom staying in one spot for more than a few minutes.

Annie is given to temper tantrums, throwing herself on the floor and crying and moaning, if not given her way. She will do this when asked to do a task she doesn't want to do.

No formal testing has been done on a social-behavioral level.

Perceptual-motor assessment.

Annie is not yet at a point where formal motor-perceptual tests would be worthwhile for educational purposes. Annie's biggest areas of deficit are the fine movements needed in holding a pencil or crayon, cutting, and so on. A fine motor scope and sequence was developed for Annie to fit her current needs and is listed in Appendix A.

Assessment of Generalized Learning Repertoires

Formal.

There have been no formal tests administered to Annie as of this time.

Informal.

Attending. Attending seems to be the most basic of Annie's problems, according to the data collected and from reports from the people that have worked with her. Annie seldom will focus her eyes on the teacher unless her head is physically directed toward the stimulus objective. Annie displays selective listening to different conversations in the room and often wanders around echoing words or phrases she has heard in a totally inappropriate manner. She will attend spontaneously for approximately 30 seconds and then wander off seeking new stimulation.

She will not attend to a pencil and paper task unless under direct supervision.

Imitation. Annie will imitate behavior if it gains attention. If one of the boys in the room is gaining attention from the teacher by attending to a particular stimulus, Annie will try to do the same to gain praise. She does not attend to the multi-media of films, books, or television. She attends best to a face directly placed in her line of vision.

Memory. When focused and refocused on the same task again and again Annie will remember for a short amount of time. For example, when asked to say the sound for the letter "a" she needed repeated learning trials and there was no carry-over from day to day until the third week of presentation. She has trouble remembering where her locker is and needs constant reminding to hang up her coat when she enters the room in the morning. When given a simple direction to go sit in the circle she does not comply.

Self-initiation-independence. After several prompts of a physical nature, Annie will attempt a task. She needs a reinforcement schedule that rewards her immediately. She has a history of one-to-one work situations and immediate primary reinforcement that did not promote independent working on a task. She responds to physical prompting and restraint and to verbal praise and attention to a limited extent.

Perseverance. Annie responds to questions whenever she wants to without waiting for her turn. She will offer an answer without stop-

ping to think if it would be appropriate. Usually her comments are inappropriate. She will not work independently on a task and needs constant supervision.

Reinforcement history. Annie has a history of one to one working situations with frequent primary rewards. She does respond to social praise by trying harder to complete a task. She seems very pleased when praised verbally for her work.

Discrimination. Annie's ability to cue on relevant stimuli is limited. When asked what a kitten says she will say "meow," but is unable to point to one on a page. When asked to pick out two objects that are the same on a page or to find the one that is different, Annie will become frustrated and knock blocks off of a table or tear up the page. She works well on concrete concepts but lacks abstract reasoning.

Concept of same-different. When asked to pick out two objects that are the same, or to find the different one, she will knock the blocks out of my hand or tear up the pictures. Visually, Annie is able to discriminate between the colors red, blue, green, orange, and yellow.

Appropriate stimulus control. Annie will often shout out inappropriate phrases during academic times. For example, during reading group, she will say Sesame Street phrases in Spanish such as "agua" making swimming motions with her hands. Or in physical education, she will recite Distar Reading cues.

Problem solving-decision making. Annie often depends upon others to make her decisions for her. She needs to be told and physically directed to do things. For example, she wanted to get rid of some glue drying on her fingers but couldn't figure out how to wash it off. She makes some choices and suffers the consequences of her actions. When she wanders around the room bothering other children they will often drag her back to her seat and sit her down rather roughly.

Following directions. If prompted several times and physically led through a direction Annie will be successful. She often appears not to hear a direction and will try and distract the asker with another question.

Generalization. Annie is not at a point to generalize her learning to new settings academically. She will generalize motor learning from physical education to the playground. She will take a basketball out on the playground for recess and shoot at the basket in the same way her physical education instructor showed her.

Question asking. Annie will often ask inappropriate questions such as "I want to do reading" when she is in math group or "Look at a magazine now?" during activity time. I have not heard Annie respond with an appropriate question. She will ask to have inappropriate things clarified such as a noise she hears in the hall or some other students directions.

Communication. Annie often talks in babyish language such as,

"He gots a beard on." She will often put her head down and fake crying when not given her own way. Her language is echolalic and she will latch onto a phrase such as, "I work hard with Mrs. X" and repeat it over and over. She uses language very well to express her wants and needs despite the demands of the situation.

Cooperation. Annie will respond to a one to one situation if she is interested in the activity. When involved in a small group situation she is unresponsive to the needs of the group. She is often out of her seat, wandering about the room and disrupting other children. She does not play well with the other children and wants to spend her free time wandering around. She does not engage in cooperative play with other children but seems to engage in a type of parallel play.

Findings of the Multidisciplinary team

Type of program placement.

Emotionally disabled classroom.

Level of the program.

Primary.

Date to be enrolled.

August 25, 1978

Long term goals. Annie will continue to improve her receptive and expressive language skills in the areas of concept development, vocabulary expansion and following directions. She will develop the academic and pre-

academic skills in reading, math, visual-motor, and social-behavioral areas of development most appropriate for her age level.

Direct service recommended. It was recommended upon the initial M-teaming that Annie be placed in a self-contained classroom for the emotionally disabled. Supporting services were to be a Speech and Langauge Clinician, and Adaptive Physical Education instruction.

Summary of test results.

Strengths. Annie has made progress in the classroom learning to work more independently, socializing with peers, using language appropriate to her situation and completing self-help tasks with little assistance from adults or peers. Although there have been gains in her independent working skills, supervision is still required. Annie knows many of the basic self-help skills such as putting on her own coat, going to the bathroom, putting on her shoes (not tying them), but still needs prodding and supervision to complete the task. Annie has demonstrated deficit skills in the areas of receptive language skills, drawing, copying, math, and self-help skills such as blowing her nose, washing her face and hands, tying her shoes.

IMPLEMENTATION

Implementation of Placement Decision

Direct services being received presently. Annie is presently placed in a class for emotionally disabled. Additional support services include adaptive physical education and speech therapy.

GOALS	TIME COMMITMENT	PERSON RESPONSIBLE FOR IMPLEMENTATION
Academic		
A-1 Annie will increase her reading skills by utilizing the Distar I program.	One hour per day expected mastery day June 1979.	BD teacher Ms. Suzanne Weekly Intern
A-2 Annie will increase her math skills by utilizing the Distar I math series.	40 minutes per day expected mastery day June 1979.	BD teacher Ms. Suzanne Weekly Intern
A-3 Annie will increase her fine motor ability to the level of writing letters and numbers on paper without a model.	Fifteen minutes per day expected mastery day June 1979.	BD teacher Ms. Suzanne Weekly Intern
Social-Behavioral		
SB-1 Annie will increase in-seat behavior to 30 minutes during activity period.	30 minutes.	BD teacher Ms. Suzanne Weekly Intern
SB-2 Annie will work on a task independently for ten minutes.	10 minutes.	BD teacher Ms. Suzanne Weekly Intern

LONG AND SHORT TERM OBJECTIVE	PERSON RESPONSIBLE	STRATEGIES	*
A-1 Reading			
Annie will say the sounds of the alphabet as represented by the letters with 100 percent accuracy.	BD teacher	Distar I reading program, drill, take-home.	12/1
Identify the letters of the alphabet with 100 percent accuracy.	BD teacher	Distar I reading program, drill, take-home.	11/15
Say the consonant sounds when a visual stimulus is presented with 100 percent accuracy.	BD teacher	Distar I reading program, drill, take-home.	
Given a word, can say the names of the letters in order four out of five words, three days in a row.	BD teacher	Distar I reading program, drill, take-home.	

LONG AND SHORT TERM OBJECTIVE	PERSON RESPONSIBLE	STRATEGIES	*
Say the long vowel sounds.	BD teacher	Distar I reading program, drill, take-home.	
Read words containing the combinations sh, ch, sl, th.	BD teacher	Distar I reading program, drill, take-home.	
A-2 Math			
Count claps (4 or 6) with 100 percent accuracy.	BD teacher	Distar I math program, drill, take-home.	10/20
Symbol I.D. 4, = with 100 percent accuracy.	BD teacher	Distar I math	9/15
Touch and count objects 1-10 with 100 percent accuracy three trials in a row.	BD teacher	Distar I math	11/10
Count claps-spaced interval with 100 percent accuracy.	BD teacher	Distar math	
Rote count to ten with 100 percent accuracy.	BD teacher	Distar math	11/16
Tough and count pictured objects with 100 percent accuracy.	BD teacher	Teacher made materials Distar I math	11/30
Rote count to 13 with 100 percent accuracy.	BD teacher	Distar I math	
Symbol I.D. 4, = 2, 6 100 percent accuracy.	BD teacher	Distar I math	
Rote counting from number 3 to 8 with 100 percent accuracy.	BD teacher	Distar I math	
Count two groups of lines with 100 percent accuracy.	BD teacher	Distar I math	
Draw lines under a numeral or a box with 100 percent accuracy.	BD teacher	Distar I math	

LONG AND SHORT TERM OBJECTIVE	PERSON RESPONSIBLE	STRATEGIES	*
SB-1 In-seat behavior			
Annie will remain in-seat for five minutes 80 percent of the time.	BD teacher	Positively reinforce in-seat behavior, peer modeling, physical restraint.	9/22
Annie will remain in-seat for 10 minutes 80 percent of the time.	BD teacher	Positive reinforcement of in-seat behavior, peer modeling, physical restraint.	10/5
Annie will remain in-seat for 20 minutes 80 percent of the time.	BD teacher	Positive reinforcement of in-seat behavior, peer modeling, teachers feet hooked around her chair.	10/17
Annie will remain in-seat for the entire activity period with 80 percent accuracy 30 minutes.	BD teacher	Positive reinforcement of in-seat behavior, peer modeling.	11/2
SB-2 Working Independently			
Annie will follow directions by remaining on-task and working independently for one minute, 80 percent of the time, three consecutive trials.	BD teacher	Positive reinforcement, good work sticker, self-graphing.	12/4
Annie will follow directions by remaining on-task and working independently for three minutes, 80 percent of the time, three consecutive trials.	BD teacher		12/13
Annie will follow directions by remaining on-task and working independently for five minutes, 80 percent of the time, three consecutive trials.	BD teacher		

LONG AND SHORT TERM OBJECTIVE	PERSON RESPONSIBLE	STRATEGIES	*
Annie will follow directions by remaining on-task and working independently for eight minutes, 80 percent of the time, three consecutive trials.	BD teacher		
Annie will follow directions by remaining on-task and working independently for ten minutes, 80 percent of the time, three consecutive trials.	BD teacher		

*Date of Achievement

Prioritizing Goals

Selecting goals and objectives for Annie was particularly difficult because she has many deficits that need remediation. It was important for her parents that Annie learn to cooperate and participate in classroom activities. Her mother expressed a concern that she be able to pay attention and stay with a group of her peers and not be relegated to a one-to-one teaching situation. She also felt that Annie was not expected to perform realistic competencies in the areas of reading and math. She felt that teachers in the past had not expected enough of her daughter and that she was capable of reading and working with numbers.

The biggest problem for this intern was one of time. Annie's attention span is quite limited and she could not work for more than twenty minutes at a time without switching activities. I considered Annie's social behavioral adjustment more important than her academic goals since the first is a prerequisite to the latter. Annie could not

learn to read unless she first could attend to a task for a length of time. Peer interaction was much enhanced by including her in a reading group and so she was incorporated into a Distar I reading group. She was able to pass the Distar Mastery Tests with the group and so, able to progress with them. For math it was necessary to work on a one-to-one basis with her as the group progressed at a rate faster than hers. She is working at a highly concrete level and not yet ready for abstract concepts.

RESULTS

Presentation of Data

See Appendices B, C, D, E, F, G, and goals and objectives.

Discussion

As illustrated in the data, Annie has increased her reading skills by mastering the listed short term objectives. The amount of repetition needed to complete an objective made it necessary to allot more time for each, therefore, we did not complete the objectives written in the time sequence allowed. Annie has increased her math skills by completing the long and short term objectives. As was with the case of reading. The time needed to teach her the objectives, along with the amount of drill and repetition needed was underestimated. Along with her regular Distar I lesson, Annie needed additional concrete manipulation, repetition, and experience. Teacher made materials provided the bulk of this practice along with counting and manipulating objects in her environment.

Annie has made tremendous progress in the social-behavioral goals area. It was required for her to be in-seat for only 80 percent of the time feeling that this was realistic for any child. Physical restraint consisted of physically putting her back in her seat when she got up and placing her in the center of the group with the teacher's legs hooked around her chair legs making it difficult for her to scoot her chair back out of the group and thus facilitating a "getaway." Fading of these techniques was easy and very effective. She was virtually unaware of the absence of legs around her chair after a time.

Recommendations

Annie should continue to work on the objectives written and should complete them given additional time. Besides her regular Distar I lesson in reading and math, Annie needs daily additional drill and seatwork in the concepts presented. Teacher made games and exercises provide this. At the beginning of the Distar program Annie was unable to stay with the group, but as her in-seat behavior improved so did her ability to progress with her peers. At the termination of this intern's time, Annie was able to sit for a thirty minute period with little reminding to stay in her own space.

The presence of a good peer model was the most effective reinforcement for in-seat behavior as indicated by the data. Being a member of the group was very reinforcing for Annie. She progressed more slowly in the area of independent work time even though others around her were also working independently. Slow, sure progress was being made in this

area also not necessitating the switching of reinforcers.

It is recommended that Annie continue in the classroom for the emotionally disabled and that she be integrated into regular first grade activities as she is able.

Finally, a complete re-evaluation, along with formal tests unable to be properly administered at the beginning of the academic year, should be conducted within the next year.

THE EFFECT OF SELF-RECORDING AND VERBAL PRAISE ON THE READING COMPREHENSION RATE OF AN EIGHT YEAR OLD MALE

Suzanne Weekly

Research supports the beneficial effects of recording one's own behavior, or as it has become known in the literature self-recording. Self-recording has proven to be an effective method for increasing rate of learning and work output (McKenzie & Rushall, 1974; Seymour & Stokes, 1976; Willis, 1974). Lovitt and Curtis (1969) noted in their article that when a child was allowed to specify the number of points he received for a certain number of pages read or problems completed, he worked faster than when his teacher specified the points he would receive for a given number of pages read or problems completed. Broden, Hall, and Mitts (1971) document the beneficial effects of recording one's own behavior, particularly when a teacher cannot attend to a child frequently, as with a class of thirty students. Teenagers who were asked to evaluate their behavior during a two week period had a lower incidence of disruptive behavior than when their teacher evaluated their behavior (Kaufman & O'Leary, 1971).

The purpose in this study is to investigate the effects of self-recording on the reading comprehension of one elementary school boy. Baseline data were taken during a six day period before the self-recording

intervention was initiated. The student was enrolled in a learning disabilities resource program.

METHOD

Subject

This subject was an eight year old boy. He was selected because of his participation in a learning disabilities class. He was initially referred to the learning disabilities program because of low performance in reading. He was working at grade level in all other areas of academic performance. His regular second grade teacher sighted reading comprehension and below grade level word attack skills as the reason for referral. The student was in a 1.7 grade level Lippincott reading group in the regular first grade class.

Materials

On the basis of the Analytical Reading Inventory (ARI) the subject was placed in the 2.0 level of the SRI Individualized Reading Program which consists of short selections followed by four comprehension questions. The questions provided were supplemented to provide question in the areas of literal and application comprehension, thus constituting five questions.

Procedure

Baseline. Baseline data were taken on the percent correct of comprehension questions for a six day period. The subject was provided

with a copy of the questions to be read before the selection and answered orally after reading.

Intervention. After baseline data were collected, the subject was told that he would be keeping a chart of the number of questions he answered correctly after reading a selection. He was provided with a chart in the shape of a rocket ready to blast off. After reading a selection and answering the questions, the subject placed a star on the chart corresponding to the percent correct. The subject was given the opportunity to read the five questions ahead of the selection. The teacher recorded the percent correct on a separate graph.

RESULTS

The average percentage correct on the comprehension questions was ten percent during baseline. The average increase rose to 85 percent during the middle of the study and then increased to an average of 100 percent. When the experimenter returned to baseline, withdrawing the self-recording chart the percentage slowly fell and remained at 50 percent for an average.

Discussion

The results of the study indicate that reading comprehension is significantly affected by self-graphing. The low baseline percentage indicates very poor comprehension to start with. The subject was provided with questions before the selection throughout the entire experi-

ment which is recommended practice for the teaching of good reading comprehension. One thing that the data does not indicate is the effect of verbal praise on the percentage correct of comprehension questions. The experimenter tried very carefully to limit the amount of verbal praise during the taking of baseline and intervention. Praise was confined to the movement of the stars on the chart when possible. Phrases such as "My, your stars are certainly blasting upwards," or "This star can go even higher than the last one," were used. The effect of verbal praise on the subject's performance cannot be minimized. The subject was genuinely pleased with the way his chart was going up and up, but also responded to the pleased attitude of the experimenter also. The regular first grade teacher has also commented that the subject's comprehension of the Lippincott reading material has greatly improved, although there is no data to back this up. The stories in the SRI material are short, have detailed excellent pictures and are relevant to the students which also could have an effect on comprehension.

Summary

In the case described here, self-graphing and verbal praise resulted in an increase in reading comprehension. Although verbal praise was tightly regulated to include only remarks concerning the flow of the graph it was paired with the self-graphing and was therefore a factor.

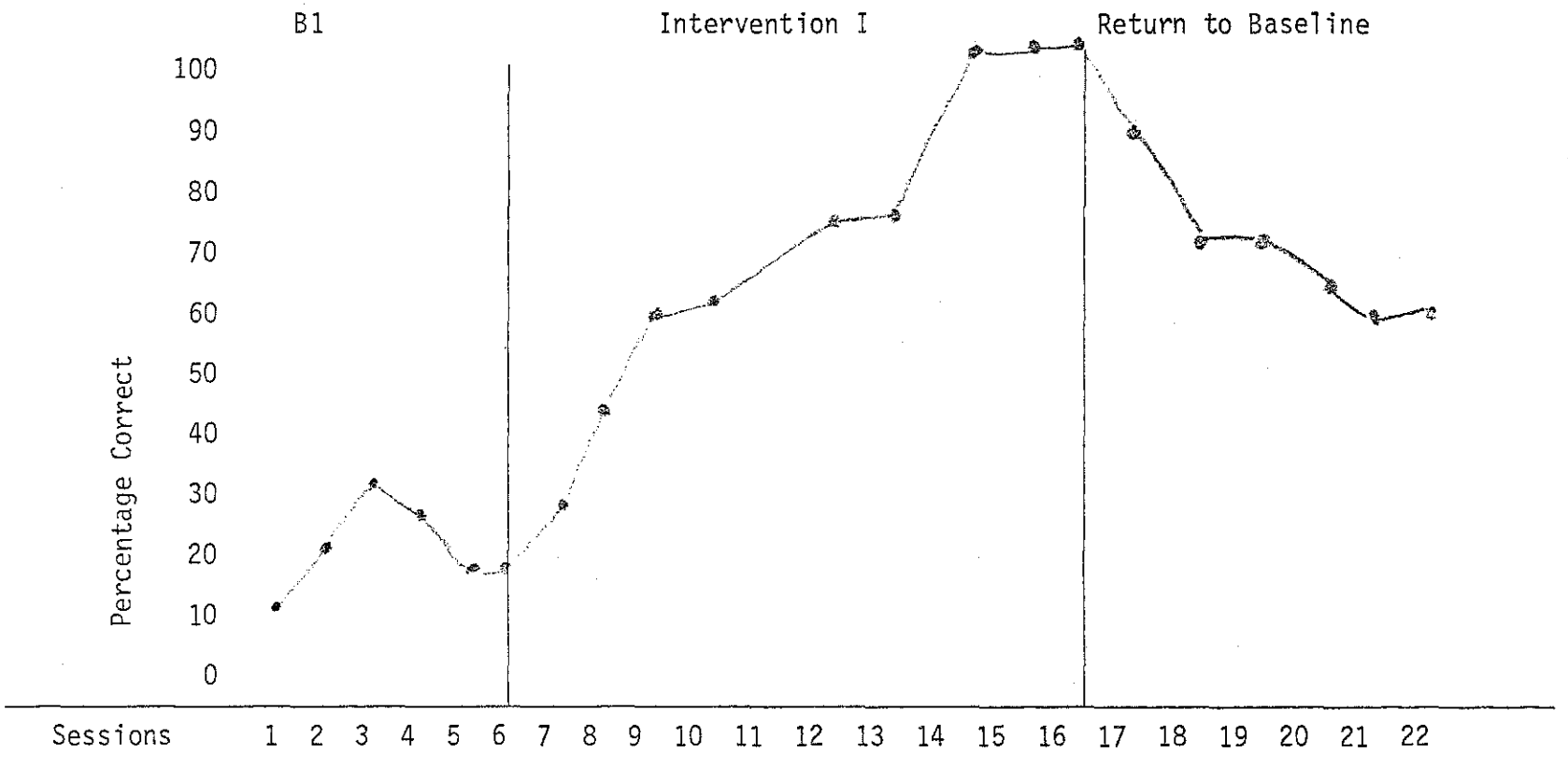


FIGURE 1

Baseline I Taken Over a Six Day Period

Intervention I consisted of self-graphing percent correct of comprehension questions.

Return to Baseline shows results of a non-intervention six day baseline.

1. Finding the main idea - major focus of story.
2. Factual - facts which have been explicitly stated in text.
3. Terminology - may or may not be text related; supply definition of a word or phrase.
4. Cause and Effect - see relationships between facts given in the text.

*5. Inferential - infer a judgement or deduction based on facts stated in the text.

*6. Conclusion - derive answer or draw a conclusion from two or more

*Use one of either type 5. or 6.

FIGURE 2

Sample of Comprehension Questions

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APPENDICES

APPENDIX A

FINE MOTOR ACTIVITIES - Scope and Sequence

Tracing. Trace lines, pictures, designs, letters, or numbers on paper, plastic, or stencils. Use directional arrows, color cues, and numbers to help the child trace the figures.

Water control. Carrying and pouring water into measured buckets from pitchers to specified levels. Use smaller amounts and finer measurements to make the task more difficult. Use of colored water makes the activity more interesting.

Cutting with scissors. Have the child cut with scissors, choosing activities appropriate to his needs. Easiest are straight, short lines marked near the edges of the paper. Then cut along straight lines across the paper. Some children might need a cardboard attached to the paper to help guide the scissors. Cut our marked geometric shapes, such as squares, rectangles, and triangles. Draw a different color line to indicate change of direction in cutting. Cut out curving lines and circles. Cut out pictures. Cut out patterns made with dots and faint lines.

Stencils or templates. Have the child draw outlines of patterns of geometric shapes. Templates can be made from cardboard, wood, plastic, old X-ray films, or containers for packaged meat. Two styles can be made; a solid shape or frames with the shape cut out.

Lacing. A cardboard punched with holes or a pegboard can be used for this activity. A design or picture is made on the board and the child weaves or sews with a heavy shoelace, yarn, or similar cord through the holes to follow the pattern.

Chalkboard Activities

Dot-to-dot. The child connects two dots on the chalkboard with a line. Dots can be placed in various positions and in varying numbers and the child must plan the lines of connection.

Circles. The child can practice making large circles on the board with one hand, two hands, clockwise and counterclockwise.

Geometric shapes. Do similar activities to those described above with lines (horizontal, vertical, and diagonal), triangles, squares, rectangles, and diamonds. At first the child can use templates to make these shapes at the board; later he can copy the shapes from models.

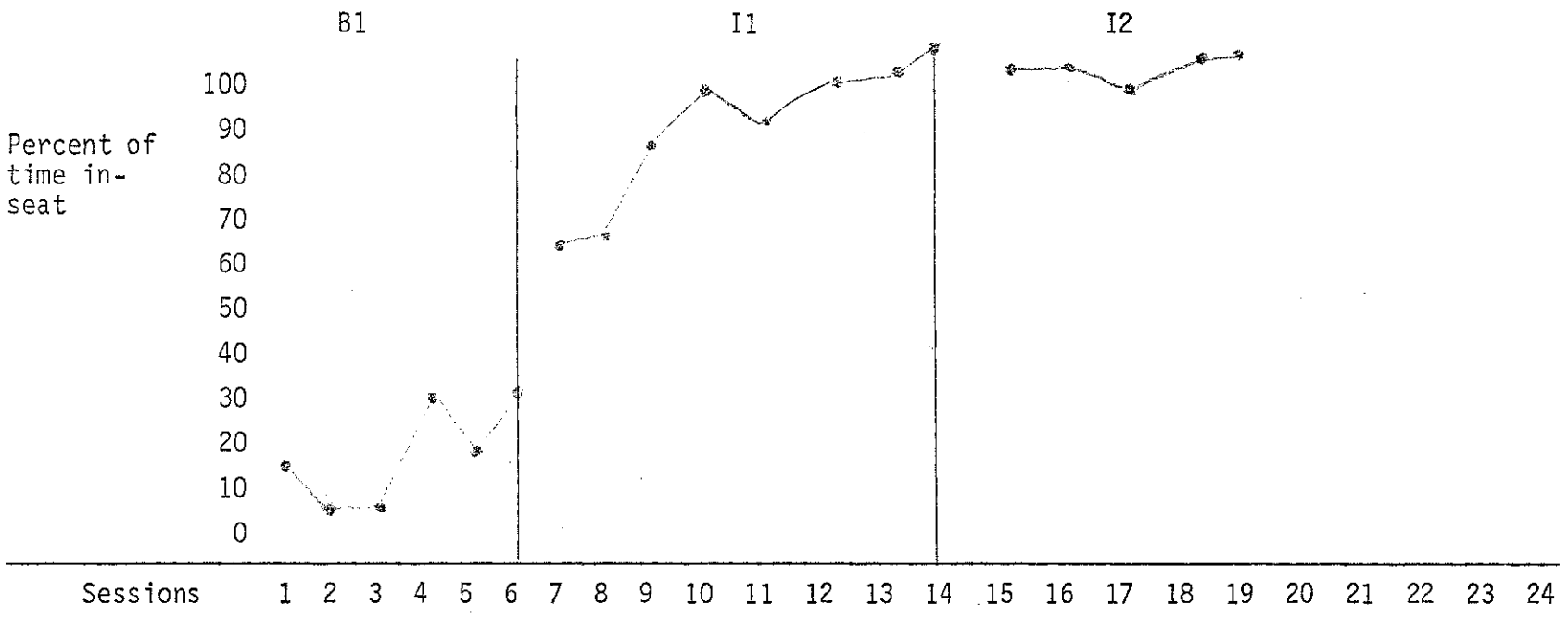
Letters and numbers. The child can practice making letters and numbers on the chalkboard. Trace letters first then from a model and memory.

APPENDIX B

Social-Behavioral - In-seat Behavior

Goal: Annie will increase her in-seat behavior to 30 minutes during the morning activity period.

Specific Objective: Annie will remain in-seat (I.S.) for increments of 5, (10, 20) and a final goal of 30 minutes 80 percent of the activity period.



B1 - No intervention

I1 - Hook teacher's legs around her chair

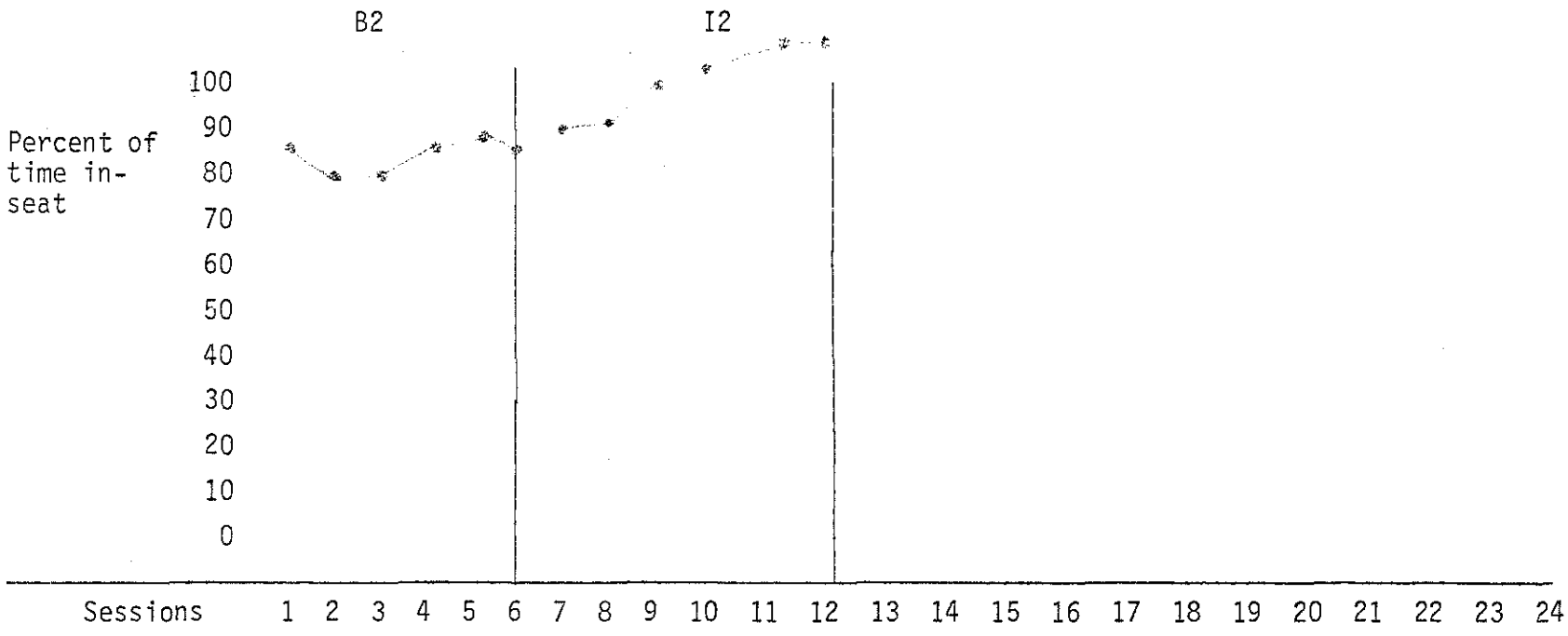
I2 - Place her chair in the middle of the activity group semi-circle

APPENDIX C

Social-Behavioral - In-seat Behavior

Goal: Annie will increase her in-seat behavior to 30 minutes during the morning activity period.

Specific Objective: Annie will remain in-seat (I.S.) for an increment of 10 minutes.



B2 - No intervention

I1 - Hook teacher's legs around her chair

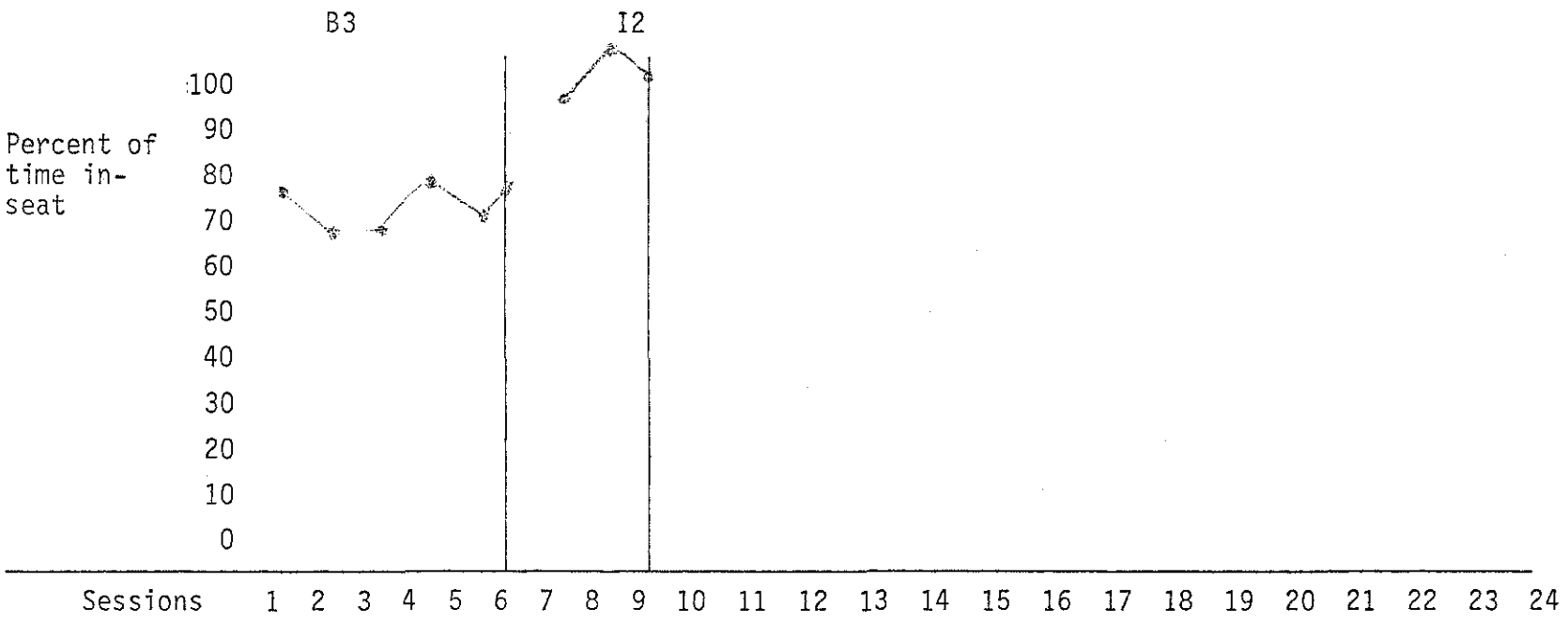
I2 - Place her chair in the middle of the activity group semi-circle

APPENDIX D

Social-Behavioral - In-seat Behavior

Goal: Annie will increase her in-seat behavior to 30 minutes during the morning activity period.

Specific Objective: Annie will remain in-seat (I.S.) for an increment of 20 minutes.



B3 - No intervention

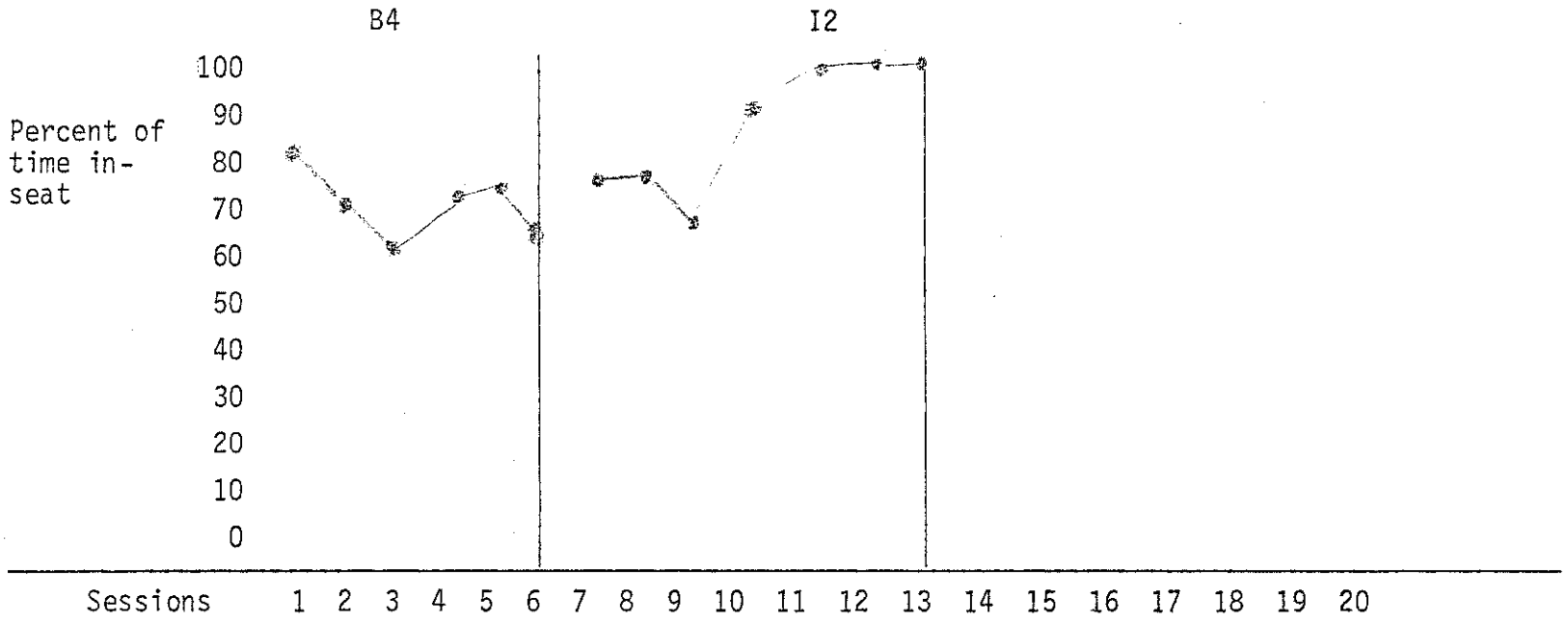
I2 - Place her chair in the center of the activity circle

APPENDIX E

Social-Behavioral - In-seat Behavior

Goal: Annie will increase her in-seat behavior to 30 minutes during the morning activity period.

Specific Objective: Annie will remain in-seat (I.S.) for a period of 30 minutes 80 percent of the activity period.



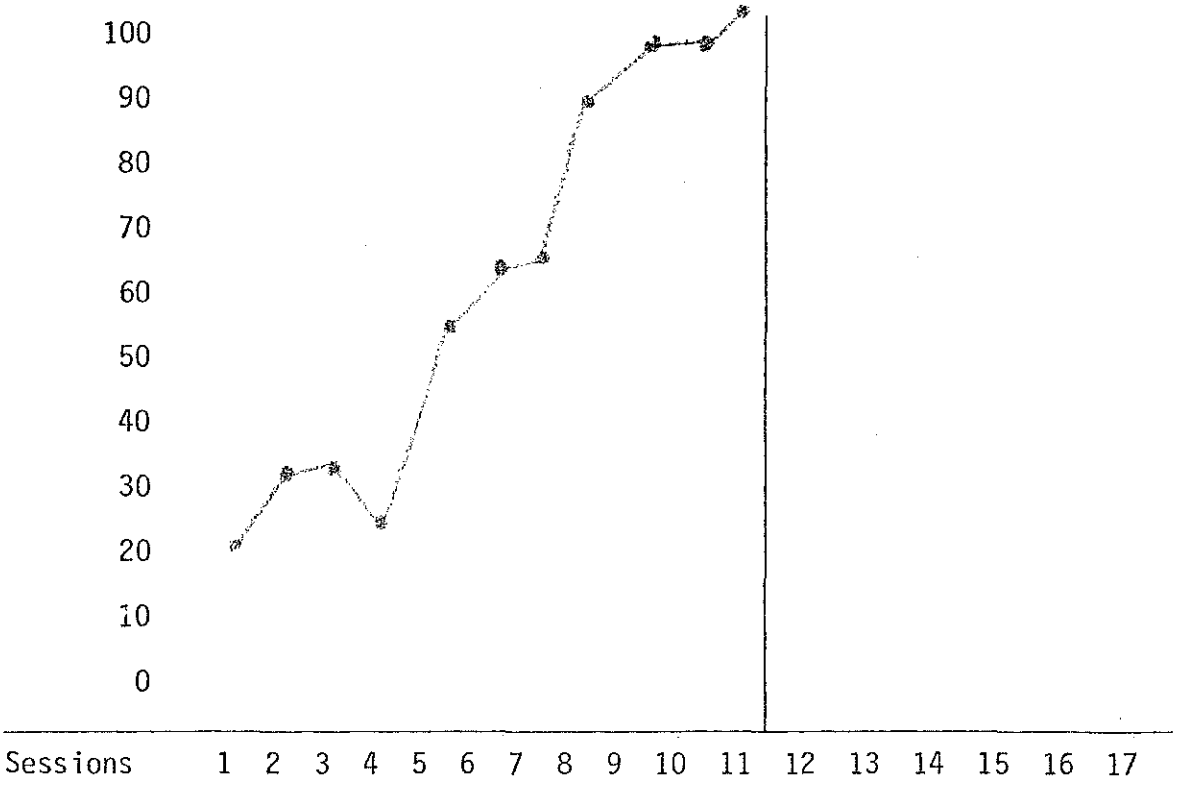
B4 - No intervention

I2 - Place her chair in the middle of the activity circle

APPENDIX F

Social-Behavioral - Following Directions

Given a verbal command and a chance to self-graph and earn a good work sticker, Annie will work independently* for one minute, three consecutive trials, 80 percent of the time.



*Distar I take homes provided most of the independent work.

APPENDIX G

Social-Behavioral - Following Directions

Given a verbal command and a chance to self-graph and earn a good work sticker, Annie will work independently for three minutes, 80 percent of the time for three consecutive trials.