

THE EFFECT OF A CONTINGENCY REINFORCEMENT  
PROGRAM ON THE SELF-CONCEPT AND  
READING ACHIEVEMENT OF  
BEGINNING READERS

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the University of Manitoba in partial fulfillment of the requirements  
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## ABSTRACT

This study was designed to investigate the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers who showed indications of reading difficulty and a negative self-concept in the first grade. A secondary concern was to determine whether there was a positive relationship between enhancement of self-concept and improvement of reading achievement.

A sample of thirty-two first grade students was randomly divided into a treatment and control group. The experimental procedure, involving a contingency reinforcement program, was administered by the classroom teacher for a ten-week period. Pre- and post-treatment administration of an experimental self-concept scale and a learning rate test were utilized to monitor any change in self-concept and reading achievement under experimental conditions.

The Mann-Whitney U-Test was utilized to determine whether any significant differences in self-concept and reading achievement had occurred between experimental and control groups. Spearman's correlation coefficient and a calculated critical ratio were employed to investigate any

relationship between enhancement of self-concept and improvement of reading achievement due to the treatment program.

On the analysis of the results, a significant difference was found between the general self-concept of the experimental and control groups. A similar significant difference was found between the reading achievement of the experimental and control groups. There was no significant difference between the academic self-concepts of the two groups.

No significant relationship was found between self-concept and reading achievement. However, when the data was regrouped, there was a significant difference between the reading achievement of the high and low self-concept groups. Further, the results provide strong evidence to suggest that a contingency reinforcement program is an effective technique for enhancement of self-concept. The relationship between self-concept enhancement and improvement of reading achievement warrants further investigation.

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## CHAPTER I

### PURPOSE AND SIGNIFICANCE OF THE STUDY

#### THE PURPOSE

The main purpose of this study was to determine the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers who showed indications of reading difficulty in the first grade. A secondary concern was to determine whether there was a positive relationship between enhancement of self-concept and improvement of reading achievement.

More specifically, the study was designed to answer the following questions:

1. Can the child's general self-concept be enhanced through reinforcement contingencies?
2. Can the child's academic self-concept be enhanced through reinforcement contingencies?
3. Does the enhancement of the general self-concept result in a concomitant improvement of reading achievement?
4. Does the enhancement of the academic self-concept result in a concomitant improvement of reading achievement?

## CONCEPTUAL FRAMEWORK

### Definition

Self-concept is considered within the context of personality, general behavior and learning theories based upon empirical and theoretical literature. From the various theoretical formulations of the self given by Lecky (1945), Rogers (1954), Jersild (1952) and Combs and Snygg (1959), one can arrive at a composite definition of the "self" as a dynamic organization of ideas and beliefs that an individual holds about himself. This organization of ideas and beliefs is the conceptualized map which the person consults in order to understand himself, representing his generalized self-concept.

### Origin of the Self-concept

The concept of self is acquired and modified through accumulated experiences of the emerging self. It develops out of interaction with the environment, reflecting the judgments, preferences and shortcomings of the particular familial and social setting (Cooley, 1902; Mead, 1934; Jersild, 1952; Coopersmith, 1967; Gergen, 1971).

Recognition of the social groups and the pattern of interaction in which the child is socialized and through which he learns the expected patterns of behavior provides

the background for understanding the origin of the self-concept. The self is essentially a social product arising out of experiences with people, inferences about oneself made as a consequence of the way one perceives others behaving toward him. Social psychologists clearly state that a person's self-concept is learned through interpersonal encounters with significant others. Any person who is involved in the administration of rewards and punishments is in a position to become a significant other. In this context the self-concept is the intervening variable between the normative pattern of the social group or the role expectations held by significant others and the learning of the individual (Combs and Snygg, 1959; Brookover and Gottlieb, 1964; Labenne, 1969).

"Self" theorists generally agree that the family provides the child with his earliest and most important self-definitions. Early experiences of adequacy or inadequacy are a product of the interactions of the various members of the family. Next to parents, teachers and peers are probably the most relevant "significant other" groups in defining the student-role expectations (Brookover et al., 1969; Coopersmith, 1967). However, Brookover found that, with differentiation of self-concept, the peer group was significant in social self-perceptions and the parent was most significant in

academic self-concept, the way the person perceived his ability to perform, with secondary grade students. But the academic self-concept is projected by the teacher to the parent by way of report cards, grading and interviews. Thus, the teacher becomes the most significant other in formation of the academic self-concept.

In the context of perceptual psychology, Combs and Snygg (1959) emphasized the need to determine how the child sees a situation and how he feels about it. Whether other persons would agree with his self-definitions or not, the self-concept has the feeling of complete reality to the individual. Experience thereafter can be interpreted only in terms of that self.

#### Dimensions of Self-concept

After an extensive review of studies and considerations of theoretical formulations, Purkey (1970) concluded that the self-concept is multi-dimensional. Numerous studies (Gergen, 1971; Pidgeon, 1970; Coopersmith, 1967; Brookover et al., 1969; Bills, 1959; Perkins, 1958, Lecky, 1945) support the claim that important predicated dimensions of the self-concept include differentiation, consistency, maintenance, stability, flexibility, self-evaluation and generalization.

With the process of establishing a self-concept, there is a continuing effort to maintain it. According to

Jersild (1952), the individual strives to be himself as he sees himself and to live in accordance with concepts or attitudes regarding himself, whether these be true or false. The person accepts and incorporates that which is congenial to the self already established and seeks to reject or avoid experiences or meanings of experiences that are uncongenial. Lecky (1945) postulated that the person's behavior expresses an effort to maintain inner consistency of the individual's evaluation of himself. This consistency is subjective rather than objective. If a new idea seems to be inconsistent, it meets with resistance and is likely to be rejected. This resistance, essential in maintaining constancy, is evidenced in the development of defence mechanisms by way of words, inappropriate behavior, evasion of facing a truth or an implication that is threatening to the self (Jersild, 1952; Combs and Snygg, 1959; Coopersmith, 1967; Labenne and Greene, 1969).

Coopersmith advanced a self-evaluation dimension of self-esteem. Self-esteem refers to:

The evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval or disapproval and indicates the extent to which the individual believes himself to be capable, significant, successful and worthy. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself. It is a

subjective experience which the individual conveys to others by verbal reports and other overt expressive behavior (Coopersmith, 1967, p.15).

Hence, it seems reasonable to assume that self-esteem, defined as an "evaluative overt attitude towards the self" is an evaluative component of the generalized self-concept. Because the individual may have good or bad opinions about himself, the terms, negative and positive, have come into use in discussing the self-concept.

Self-esteem may vary across different areas of experience and according to the age, sex and other role defining conditions. An individual may, for example, consider himself a worthy student, moderate in sports, unworthy musician. His overall self-appraisal would weight these according to their subjective importance and enable him to arrive at a general level of self-esteem. Differentiation insulates against the disturbing effects of lowered self-esteem in one area; that is, the individual may consider himself a poor athlete, friendly person, good student rather than poor in everything. But if the lowered self-appraisal is considered of greatest importance by the individual, generalization tends to lower the overall self-esteem (Coopersmith, 1967; Brookover, 1967; Gergen, 1971).

Dreikurs (1957) stated that the self-concept is in a process of continuous change. It is modified by everyday

experiences, at least through the maturing years. Diggory (1966) and Gergen (1971) reported on numerous studies that indicate changes in various aspects of the self-concept with college students.

In the first of four interrelated studies, Coopersmith (1967) identified five different categories or types of self-esteem each of which was related to a level of academic performance - high, medium and low. Two groups of self-esteem, the "high-lows" and the "low-highs", showed divergent self and behavioral evaluations. The "high-lows" overestimation of self-esteem presumably reflected defensive distortions against the realities of failure and inferiority. Bills' (1959) earlier study of college students enrolled in a reading improvement course indicated similar groupings with the exception of the medium self-esteem group which was not represented in his study. Bills identified his discrepant groups as "false positives" when they expressed a positive self-concept but overestimated their ability and performance, and "false negatives" when they were negative about themselves and underestimated their ability and performance. Generally, self-reports represented behavioral or performance evaluations accurately. Coopersmith (1967) indicated that extreme divergence is likely to occur in less than ten percent of the cases.

### Self-concept in Relation to Achievement

Empirical and experimental data indicate a direct relationship between the child's self-concept, his manifest behavior, perception and academic performance. Lecky (1945) was one of the first to demonstrate that low academic achievement was often due to a child's definition of himself as a non-learner. Walsh (1956) found that "high ability, low achievers" had a negative self-regard when matched with "high ability, high achievers". Labenne (1969) reviewed other studies that presented additional data to demonstrate that a person's self-concept has a direct bearing on his intellectual efficiency. Poor achievement usually promotes a depreciation of one's self-concept, which, in turn, leads to continued poor achievement; a vicious cycle develops. To a lesser degree, successful achievement leads to an enhanced self-concept, which, in turn, leads to improved achievement. Because of these factors, a child's behavior recurrently becomes a function of the expectations of others. Dechant (1964) noted that the poor student who fears failure, even if he does his best, frequently will protect himself by deciding not to learn. He stated:

The more the pupil falls behind academically, the more his pretense of adequacy is threatened and the more pronounced becomes his deviant behavior. The fourth grader might defy the teacher; by the eighth grade he defies police and society (Dechant, 1964, p.87).

Abrams (1971) hypothesized that the child who experiences initial reading failure is subjected to emotional stress. As the reading failure persists, frustration, reduced attention, anxiety and a real sense of helplessness will be invoked and followed by withdrawal reactions and/or aggressive acting out. As the disability continues and the stress grows greater, a strong aversion develops to the whole reading process and other academic areas through the process of generalization. This is similar to Mager's (1968) avoidance approach response.

Purkey (1970) who made an extensive review of the relationship between self-concept and achievement concluded that the data stresses a reciprocal relationship between positive self-concept and scholastic success, a negative self-concept and scholastic failure.

#### The Teacher as an Agent of Self-concept Change

Staines (1965) demonstrated that it is within the powers of a teacher to change a student's concept of himself. Studies reported by Gergen (1971) with college students support the view that self-concept can be enhanced. Numerous other studies (Flowers and Marston, 1972; Diggory, 1966; Lecky, 1945) corroborated the claim that self-concept can be changed.

For the past decade the literature has been replete

with expositions about enhancement of the self-concept that involves teacher-pupil relationships as a condition for proficient academic and emotional growth. Essential to academic and emotional growth is a supportive learning climate. This climate is largely the responsibility of the teacher. There is a general consensus that the teacher's attitude plays a major role in pupil-teacher dynamics. According to Mager (1968, p.15), the word "attitude" denotes the "making of a prediction about the future behavior of a person based on our observations of his past behavior". The denotation of a teacher's attitude is evident in his behavior towards the child. A supporting learning climate involves supportive teacher behavior towards the child and class.

Significant teacher behavior important for the facilitation of learning have been determined from a review of interaction analysis studies, concomitant with learning theory. Pankratz and Roger (1967) found a difference in verbal behavior patterns present in classrooms of two samples of twelfth grade physics teachers that produced evidence to support the assertion of a relationship between teacher reinforcement, enhanced self-perceptions and improved learning. In a study to determine the kinds of teacher-pupil interaction patterns which are present in elementary school classrooms (grades one to six), Furst and Amidon (1967) concluded that

teachers in the primary grades feel that encouragement, acceptance and praise are important techniques to use with their children while teachers in the upper elementary seem to feel that less of this is necessary and that more information and ideas need to be communicated.

Allen and Ryan (1969) agreed that the teacher's role is one of being a positive reinforcer; that positive reinforcement of a behavior tends to increase the chance that the specific behavior will re-occur. Using reinforcement effectively can help a teacher inform the student about his progress and create a good classroom climate.

In a discourse of exploration of hypothesized relationships between aspects of learning theory, classroom behavior of teachers and students and the facilitation of students learning, Hough (1967) advocated the use of principles of learning drawn from reinforcement theory, by its nature behavioristically oriented. This recommendation of use of reinforcement principles is in concurrence with previously reviewed conclusions (Pankratz and Rogers, 1967; Allen and Ryan, 1967).

The central thesis of reinforcement theory is that if a behavior emitted is contiguously reinforced, it will, on later presentation of a similar or analogous stimulus, be emitted with greater probability than if it had not been

reinforced. If the full effect of the reinforcement is to be achieved with regard to a behavior, the reinforcement must be associated with that behavior for which it is intended as a reinforcer. In order for a reinforcement to be associated with a particular behavior, it should follow that behavior in close temporal contiguity. Repetition of behavior without reinforcement is largely an inefficient and ineffective way to learn. Positive reinforcers may be seen in the classroom in the form of rewards, praise, encouragement, acceptance and clarification of ideas, i.e., feedback. Each of these forms of reinforcement will by definition increase the probability that the behaviors for which they are reinforcers will be emitted in the future (Hough, 1967).

Concomitant positive reinforcement contingencies have been drawn from research and learning theories. Dinkmeyer (1965) and Diggory (1966) proposed that knowledge of results are the most important procedure in motivation. Diggory, supported by Hess and Croft (1972), submit success experiences, challenge level, modeling after effective and competent individuals as important contingencies. Besides subscribing generally to the aforementioned, Dreikurs (1957), Dinkmeyer and Dreikurs (1963) and Pidgeon (1970) stressed the importance of encouragement and expectancy in facilitating perceptual learning.

Summary

The framework for this study has been derived from theoretical formulations - basic and applied research. Self-concept and achievement, or more specifically, self-concept and reading have been considered in a reciprocal relationship. The study attempts to enhance negative self-concepts through contingency management. According to Flanders (1967), all the evidence suggests that, in teacher-pupil interaction, teacher behavior affects pupil attitudes. From this point of view, the assumption is made by the writer that a teacher's consistent positive behavior towards a child can effect a change in pupil attitude towards himself - an enhancement of a negative self-concept.

Contingencies of reinforcement, drawn from learning theory and research studies, include social reinforcement, modeling, encouragement, expectancy, success experience, challenge level and knowledge of results. To facilitate achievement motive towards reading, reading relevancy has been included as a variable. According to Monroe (1951), the child's desire to learn to read depends upon what his past experiences with books have been, whether he has learned to enjoy them or not. She stated:

Children whose preschool experience with books has been extensive have usually developed the desire to read long before they come to school.

They present no problem in motivation for reading. Desire to read, in and of itself, does not insure reading success. Lack of desire to read, however, may keep children from achievement even though they possess all the other necessary qualifications to learn (Monroe, 1951, p.22-23).

The selection of beginning grade one level for the study was promoted by several considerations. It has been suggested that the self-concept at this early age is at a malleable, developmental stage (Coopersmith, 1967). Although the child may already have a consistent negative self-concept generally, it is unlikely that his academic self-concept has achieved stability. Another consideration was "prevention rather than cure," provision of an intervention before the reading difficulty and depreciation of self-concept have become firmly established. Also, according to Baer and Wolf (1968), children in this age range typically are extremely sensitive to social reinforcement and the peer group usually has not yet developed into a powerful competitor for control of the child's behavior as at the higher grade levels.

The presence of both experimental and control subjects in each class was deliberate in an effort to control for the teacher difference variable as found by Davidson and Lang (1960).

#### SIGNIFICANCE OF THE STUDY

If psychology is to have a significant effect upon

teaching procedures and techniques, theory and practice must be tied up in a very definite way. Hough (1967) made the assertion that libraries are full of research findings which have never found their way into teacher behavior. This applied research investigation will hopefully provide a transition between basic research, theory and classroom application.

The relationship between self-concept and academic achievement has been widely investigated for at least three decades (Pidgeon, 1970; Purkey, 1970; Labenne and Greene, 1969; Brookover et al., 1963, 1964, 1967, 1969; Combs and Snygg, 1959; Jersild, 1952; Lecky, 1945). Clearly a persistent and significant relationship has been ascertained. Reading, because of its importance in society, assumes great importance as a developmental task. Children with reading difficulties are under a severe handicap. Not only are they debarred from a world of print and knowledge, but the emotional blocking thus occasioned tends also to prevent their achievement in other fields.

In the light of the potential significance of the self-concept and the wide belief that it is a theoretically central variable, there is a paucity of studies of the topic in recent years. There have been theories and speculations in number, but few of these have been subjected to more

critical empirical analysis and investigations within an educational setting.

The importance and value of this study are derived from the fact that it investigates a relatively unexplored aspect of experimentally changing the self-concept while aiming at the normal results of teaching reading. Investigation of this relationship between self-concept and reading will hopefully contribute to a better understanding of its dynamics.

#### DEFINITION OF TERMS

Self-concept. Coopersmith stated that self-esteem refers to "the evaluation which the individual makes and customarily maintains with regard to himself" (1970, p.15). The term "self-concept" was used interchangeably with "self-esteem", "self-perception", "self-evaluation", "self-regard", "self-appraisal" to express an evaluative overt attitude towards the self. Self-concept emphasizes the individual's perception of his value and ability; that is, how he sees himself, how he feels about being this sort of person, how he perceives his ability to perform. For the purpose of this study, self-concept was operationally defined as a quantified norm-referenced measure displayed on the adaptation of Gordon's (1966) "How-I-See-Myself Scale".

Negative self-concept. A negative or low self-concept was defined as one in which the individual perceives himself as incapable or unimportant to such an extent that he is unable to perform at a normal level. For this study, it was operationally defined as subjects scoring at and below the lower third of the self-report scale.

Academic self-concept. This measure, indicative of the way the individual perceives his ability to perform, was operationally defined as a quantified score on a fifteen-item cluster of the overall self-concept scale.

Reading achievement. This measure was determined by a Learning Rate test that was designed to measure the child's capacity to learn sight words. A more detailed explanation of this test follows in chapter three.

Reading difficulty. In this study, a sub-test of the Canadian Readiness Test was used as a measure of reading difficulty. The twenty-two item, part eight sub-test was utilized as a word discrimination test rather than as a learning rate test as set out by the authors.

Reinforcement contingencies. Homme et al. (1969) stated that contingency management involves mainly a commitment or willingness to pay off for the behavior wanted. He analyzed the self-concept within a contingency management framework.

When one speaks about the self-concept, one may simply be talking about the aggregate of sentences the individual says (or thinks) to himself and to others about himself. He added:

Viewed in this light, it becomes a simple matter to instal a favorable self-concept: One simply strengthens a class of verbal behavior. E.g., after a good performance, 'That was a fine job, you are a fast learner.' At this point the teacher reinforces verbally (Homme et al., 1969, p.32).

He purported that after a few trials of this sort, the "I am a fast learner" conception of himself competes quite successfully with the child's "I sure am dumb" concept.

For the purposes of this study, the contingencies of positive reinforcement were the social and objective criteria summarized from research findings purported to be agents of self-concept change.

Positive social reinforcement. This social criteria included teachers' verbal and written feedback in the form of praise, encouragement, explanation, modeling, peer recognition, expectancy and contractual agreement.

Successful performance. This measure was determined by the success at task performance that the child experienced. This also included knowledge of results through written teacher feedback on all independent work. Successful experience was operationally measured by the examiner's "Success in work" record form.

Reading relevancy. This term refers in this study specifically to three pools of suggested activities to foster a positive attitude towards reading (Monroe, 1951).

#### PLAN OF THE STUDY

Thirty-two first grade students drawn from three elementary schools in a middle class Winnipeg suburb, served as subjects. They had been identified as having a negative self-concept and experiencing reading difficulty. Pupils were initially identified by the classroom teacher, followed by a self-report scale which was used as a pre- and post-treatment measure of self-concept and a sub-test of the Canadian Readiness Test as a measure of reading difficulty. A Learning Rate test was devised and used as a pre- and post-treatment measure of reading achievement.

The thirty-two subjects were randomly divided into two groups, experimental and control. During the ten week experimental period, a contingency reinforcement program was carried on by the classroom teachers for the duration of the morning Language Arts period, approximately one hour daily. Three types of reinforcers were utilized: positive social reinforcement, successful experience and reading relevancy. An observation check by the examiner was made in each classroom once every six day cycle on a random basis.

## ORGANIZATION OF THE STUDY

Chapter I has discussed the purpose, significance and theoretical framework of the study and included a procedural summary.

Chapter II will discuss those research studies which provide the theoretical underpinning of the present study.

Chapter III will include definition of terms, statement of hypotheses and a detailed description of procedures.

Chapter IV will present the analyses of data and describe the findings of the study.

Chapter V will interpret and consider the implications of the findings. Limitations of the study, as well as suggestions for further research, will also be included in this chapter.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

#### FACTORS WHICH INFLUENCE SELF-CONCEPT

The individual's self-concept is that which primarily guides, controls and regulates his performance and action. The constituents of this concept of self are the person's total appraisal of his appearance, background, abilities and resources, attitudes and feelings which culminate as a directing force in behavior. Influencing factors represent an examination of motive and controlling forces and conditions that produce positive and negative self-concepts. Factors which influence self-concept reviewed here include the following: (1) perceptual dynamics; (2) sex, intelligence, age and socioeconomic status; (3) social interaction; (4) school environment; (5) teacher influence; (6) agents of self-concept change.

#### Perceptual dynamics

Bills (1959) theorized that the perceptual determinants of the self and subsequent behavior are beliefs, values, needs, attitudes, self-experience and threat. Beliefs allude to what one believes to be true and consequently with how one behaves. Values are defined as a

belief of what is important. Needs are perceived on two levels, need to maintain or enhance self-organization, and need for approval, acceptance, status or prestige, power. Attitudes are an emotionalized belief usually about the worth or lack of worth of something or somebody. Self-experience indicates the individual's self-perceptions -- how he sees himself, how he feels about being the sort of person he is and how he would like to be. Threat is defined as the perception of an imposed force. One is most threatened when one is forced to change the ways in which he seeks for maintenance of self-organization. Bills stated:

Threat causes defensiveness of behavior, a narrowing and constricting of the perceptual field. Under threat we seek to maintain, not to enhance or grow. We concentrate on the same and secure, the tried and true. We engage in unimportant but safe behavior. Imagination, initiative and creativity are destroyed (Bills, 1959, p.62).

Numerous theorists support these formulations. Combs (1969) recounted defence reactions as a second effect of threat. According to him, threat causes the individual to protect and cling to the perceptions he already holds; opportunities for new perceptions or learning are decreased, behavior becomes rigid. Rigidity of perception becomes an important factor in limiting intelligence. Combs reported a number of cases in which intelligence scores improved considerably under therapy. A differentiation was made between "threat"

and "challenge" in terms of feeling of competence, inadequacy and adequacy. In challenge, the individual feels a degree of adequacy to deal with the threat whereas, in threat, the individual feels a degree of inadequacy to deal with the threat.

The level of an individual's self-esteem appears to have an effect upon how one reacts to threat. In a study of elementary students, Coopersmith's (1967) findings strongly suggest that children with high self-esteem are less likely to display distress and anxiety, are better able to deal with threats when they arise than children who think less well of themselves. He concluded that a threatening situation evokes a circular effect - anxiety, defensiveness which evokes feelings of inadequacy and helplessness which evokes anxiety.

Based on his study that involved a total of 1,748 students, Coopersmith (1967) outlined three major social determinants of high self-esteem: total or nearly total acceptance of the children by their parents, clearly defined and enforced limits, and the respect and latitude for individual action that exist within the defined limits. Conversely, the three major social determinants of low self-esteem were rejection, ambiguity of limits and disrespect for the individual.

Coopersmith further hypothesized that a personal frame of reference of success, failure and aspirations are actuated by defined standards. Defined standards make it easier for the child to know when he has failed, by how much and what he must do to achieve success. Absence of defined standards apparently leaves the child uncertain of his success and failure and lessens the likelihood that he will judge his performance as successful. The low self-esteem child, desirous of success, is less likely to believe that such success will occur. This expression of anticipated failure decreases expectations and probably contributes to the occurrence of such failure. The high self-esteem child sets higher goals and maintains esteem by meeting his expectations. Thus the cumulative effect of success is a powerful influence on the development of a positive self-concept.

Findings of recent investigations by Diggory (1966) support the claim that success and failure are generalized throughout the self-evaluative system. Diggory discovered from his research that a failure in ability that is important and highly rated by the individual lowers his self-evaluation of other abilities that are seemingly unrelated. Conversely, the success of an important and highly rated ability raises the self-evaluation of other abilities. A similar finding of

a generalization of success and failure effect was reported by Ludwig and Maehr (1967). Sears (1940) produced evidence to support the hypothesis that experiences of success and failure influence levels of aspirations. Good students tend to keep their levels of aspiration slightly above their past performance, whereas poor students tend to show excessively high or excessively low aspiration.

Referring to the limiting factors of expectations as a function of past experience of success and failure and interactions with others, Combs feels that:

We have literally hundreds of thousands of people in our society who are the prisoners of their own perceptions. Believing that they can only do x well, they only do x much. The rest of us, seeing them do only x much, say, "Well, that's an x much person," and this just proves what these people have thought in the first place (Combs, 1969b, p.288-9).

Self-concept is also a product of cognitive activity; that is, a child's awareness of his own characteristics, differences, likenesses between himself and others, positive or negative comparisons and evaluations. A study by Seashore and Bavelas (1942) indicated the interrelatedness of negative evaluations and cognitive activity. The subjects were asked to draw a person. Upon completion of the drawing they were asked to draw a better person. After a number of repeated trials, the researchers found a general tendency toward cognitive regression, as measured in terms of changes in

mental age on the Goodenough scale.

### Sex, Intelligence, Age and Socioeconomic Status

Findings of recent investigations support the claim that environmental forces are potent factors in the development of self-concept. Although these findings generally confirm that such characteristics as intelligence and chronological age are significant factors, there is some disagreement as to the effect of sex and socioeconomic differences.

#### Sex Differences

Wylie (1961), who has made an extensive review of studies of self-concept, concluded that there may be some sex differences with regard to discrepancies which are perceived between actual self, ideal for self and social expectations. Discrepant findings with regard to the effect of sex differences on self-concept are reported in other studies. Among 251 fourth and sixth grade children tested, Perkins (1958) found that girls had significantly greater self-ideal congruence than did the boys. Engel (1959) found no significant differences between male and female adolescents in more positive self-evaluations. In a more recent review, Purkey (1971) adduced that male underachievers tend to have more negative self-concepts than female underachievers, and that girls, both high and low achievers, indicate a higher self-

concept than boys. Edeburn (1974) substantiated these findings in grades three to eight in two elementary schools. However, in a study at the grades four, five and six level, Davidson and Lang (1960) indicated that girls generally perceived their teachers' feelings as more favorable than did boys, that the teachers' behavior ratings of the girls were more favorable than of the boys. This supports the finding that teachers expressed greater approval of girls and greater disapproval of boys in elementary school.

#### Intelligence

Labenne and Greene (1969) reviewed numerous studies that presented data to demonstrate that a person's self-concept has a direct bearing on his intellectual efficiency. Walsh (1956) found that "high ability, low achievers" had a negative self-regard when matched with "high-ability, high achievers." Brookover et al. (1964) reported a significant positive correlation between academic self-concept, perceived evaluation of significant others, general performance in academic subjects and achievement in specific subject matter fields at the high school level. Studies by Dinkmeyer (1965) and Seashore and Bavelas (1942) have provided some evidence that measured intelligence is subject to fluctuations related to the child's personal-social experiences, emotional life and self-appraisal.

Contrary to the findings of Brookover (1964) with adolescents and Coopersmith (1967) with elementary students, Wattenberg and Clifford (1964) found a very low association between self-concept measures and intelligence test scores at the kindergarten, grade one and two levels. It might be inferred from this that the child's self-concept, in interaction with success and failure has a direct bearing on his intellectual efficiency.

In appraising the relationship between self-esteem and intelligence Coopersmith (1967) contended that intelligence is an important contributor to effectiveness and academic performance. He stated:

Presumably higher levels of intelligence are associated with more frequent successes, which are, in turn, associated with higher self-esteem, provided that these successes are so regarded by the individual and are so expressed in his behavior. If this linkage is correct, then capacity (intelligence) is unlikely to have striking and extended consequences unless it eventuates in performance (Coopersmith, 1967, p.128).

#### Age

Due to the lack of longitudinal data, the results from cross-sectional studies of various age groups are used to attain a tentative developmental picture of self-concept. That the early years of life are critical in forming the child's opinion of himself is a common assertion made by

"self" theorists (Jersild, 1952; Combs and Snygg, 1959; Hess and Croft, 1972). Edeburn (1974) found that the self-concept of the primary group, grades three as compared to grades four to eight, was significantly related to the self-concept of their teachers. In a study of ages six to sixteen, Wylie (1961) found that children tend to move away from the family members with age. That is to say, the peer group rather than the family members become more significant in self-evaluations as the child progresses in age. Brookover (1969) corroborated this finding, but further purported a differentiation of self-concept, one of which was the academic self-concept for whose development parents and teachers were most influential. In his six year longitudinal study of grades seven through twelve, he denoted a stability of the self-concept. This indication was corroborated by Engel (1959).

#### Socioeconomic Status

A relationship between self-concept and socioeconomic status is indicated in a number of studies. Contrary to the common assertion that disadvantaged or lower social group children report low self-concepts, Soares and Soares (1969) found on the whole, more positive self-perceptions among the disadvantaged than the advantaged children in a comparative study of the self-perceptions of

disadvantaged and advantaged elementary school children.

In a study of 203 fourth to sixth grade children, Davidson and Lang (1960), found that children in the upper and middle socioeconomic groups perceive their teachers' feelings toward them more favorably than do children in the lower class group. Likewise, teachers rated more of the children in the upper social class as doing very well in school as compared to children in the lower class.

Coopersmith's results, on the other hand, suggest that children in different social classes do not experience as much difference in prestige and success as may popularly be imagined. He made an alternative interpretation that success is not as closely related to material benefits as is commonly believed. Based on a review of additional studies, Purkey (1970) adduced that the emotional climate of the family is likely more important than economic or social factors and that the emotional press toward low self-esteem can exist in both advantaged and disadvantaged families. Pidgeon (1970) provided further evidence that it is the motivational factors in the home background, such as the interest and attitudes of the parents, and not the more fixed material and economic conditions, that is important in influencing children's school performance.

### Social Interaction

There is a vast body of theoretical formulations and descriptive research but a paucity of experimental studies related to social interaction and the self-concept. Social psychologists clearly state that a person's self-concept is learned through interpersonal encounters with "significant others." Mead (1934) concluded that the individual internalizes the ideas and attitudes expressed by the key figures in his life, observing their actions and attitudes, adopting them and expressing them as his own. Similarly, Coopersmith stated:

If one places high value on himself, there have been key persons in his life who have treated him with concern and respect; if he holds himself lowly, significant others have treated him as an inferior object (Coopersmith, 1967, p.31).

Dreikurs (1957) suggested that the self must be looked upon in a process of continuous change. Even if it is directed by a central core of stability, self-concept changes as the child compared himself with his peers and engages in competition. In this measuring of self versus others, new standards in self-evaluation are set. If the child operates on the basis of faulty assumptions, the responses he gets from others will tend to reinforce them. In this way, the faulty assumptions of the individual

frequently become stabilized and set. Many faulty assumptions of children are devices to protect themselves from change and new experiences.

Davidson and Lang (1960) lend support to the view that a child's assessment of himself is related to the assessment "significant people" make of him. Self-concept of ability of fourth to sixth grade students was significantly related to the perceptions of others, namely teachers' expectation. A close relationship was also substantiated between self-appraisal and children's perceptions of their parents' feelings toward them by Brookover (1963, 1969), Coopersmith (1967), Jourard and Remy (1955) and Ausubel (1954).

Coopersmith found that children's own appraisals were significantly concomitant with mothers' and teachers' appraisal of the children's ability. Brookover purported that the expectations held by significant others - parents, teachers and peers - may reinforce each other or may be incompatible and tend to counteract each other. If all significant others hold similar expectations, the students' self-concept and achievement are more closely related to their expectations. Where divergence occurs, the student may select one significant other as important; then his self-concept and achievement are more closely related to the one perceived as most important and less related to others.

Inversely, the student may be frustrated by the differences he perceives in expectations, react in deviant behavior, select the lowest level of expectations and perform at this low level.

Brookover (1969) attempted to enhance low-achieving students' self-concept of academic ability and thereby effect an increase in academic achievement at the secondary level. The enhancement program was carried out by the parents, a counselor and an outside "expert", respectively in the three experiments. The results indicated that only working with the parents was significant in changing the self-concept of students or their performance in school. This supported the assertion of the credibility of parents, peers and teachers in the process of self-evaluation rather than the counselor as "expert", who was a non-significant person to the student. The researcher concluded that it is more effective to work through those who already have credibility and are "significant others" than to work directly with low-achieving students. The conclusion can be drawn that the teacher becomes a significant influence in the development of academic self-concept. The actions of teachers serve as the basis for peer and parental judgments of students' ability. Teacher-parent communication is generally concerned with faults of the children; thus teachers communicate a low self-concept of

ability to the parents.

Although it appears that teachers perpetuate a high or low self-concept of ability in the school environment, parents are instrumental in setting the preconditions for a positive self-concept of ability. Carroll (1973) found a significant difference between parental acceptance, high achievers and low achievers in kindergarten. High parental acceptance was positively related to high cognitive achievement. In his research on the achievement motive, McClelland (1953) found that parental expectations and rewards for early achievement of independent behavior before school age resulted in a high need for achievement in the child.

Contrary to popular belief, Coopersmith found that parents of children with high esteem spend no more time with their children nor are any less inclined to punish the child for transgressions than parents of other children. Generally, they are concerned and accepting of their children, create a structure that they believe to be proper and appropriate, and permit freedom within the structure they have established. They expect their children to strive and comply with the standards they have established. These expectations represent a belief in their child's adequacy. That earliest experiences of adequacy or inadequacy are a product of the interactions of the various members of the family is likewise maintained

by Combs and Snygg (1959).

Henderson (1973), in a study of over 1,500 fourth to sixth graders, concluded that the self-concept of academic ability, regardless of socioeconomic level, racial origin, grade level, was most strongly affected by the significant others variable - perceived expectations and evaluations of peers, teachers, parents, respectively. Brookover's (1963) study of 110 seventh grade under and overachieving students, corroborated this finding, differing only in the order of the influence of "significant others", parents, teachers, peers, respectively. The difference of order of significant others' influence could be a function of the instrument of measurement. However, he found that the most significant influence on academic self-concept was the sum total of parent, teacher and peer rather than the individual influence of parent, teacher or peer.

#### School Environment

The influence of schooling or education may have a positive, negative or no effect on a child's concept of self. According to Jersild (1952), the role of the school is not only incidental, but direct. It dispenses praise and reproof, acceptance and rejection on a colossal scale. In a good setting, reminders of failings, shortcomings and limitations are wholesome for they help the child to face and deal with

the realities of life. But, failures, limitations and rejections which children face at school are often artificial, contrived and have the effect of humiliating the child by depreciating his worth. Tests, as often employed, in effect tell a child that he is more or less a success or failure. He further contended that the school supplies a weapon that can be used at home against a child who is rejected by his family; report cards can be used as evidence by parents against the child. School also plays an important part in the kind of self-appraisal which students make when they appraise themselves in terms of their standing among their peers. Jersild concluded that:

It is reasonable to assume that for many young people school is second only to the home as an institution which determines the growing individual's concept of himself and his attitudes of self-acceptance or self-rejection (Jersild, 1952, p.90).

In an investigation of 528 students to determine any changes in students' self-concepts in grades three to eight, Edeburn (1974) noted a general lowering of self-concept and attitude towards school at the third and fifth grade level and significant negative changes by all students. Numerous studies have indicated that the school influences that may have a negative effect on a child's self-concept include ability grouping, creation of "false positive" self-concepts, low motivation and expectation levels and

experiences of failure (Pidgeon, 1970, 1972; Labenne and Greene, 1969; Luchins and Luchins, 1948).

Perceptual psychologists generally conclude that ability groupings lead to stereotyped and stratified school roles and parental pressures which prevent the child from developing healthy social relationships and positive self-concepts. Carroll (1967) found that retardates who were segregated and had no school contact with normal children were significantly more derogatory of themselves. After eight months of half-day regular class placement they had a significant decrease in self-derogations and had made significant improvement in reading over those in segregated settings. Drews, as reported by Brookover (1964) has limited data to suggest that homogeneous grouping of ninth grade students affected their self-concepts. Homogeneously grouped superior students seemed to lower their self-concepts over a period of a year; this was found not so for heterogeneously organized classes. According to Combs (1952), the child is locked in a compartment of ability; after the third year of this differential placement, the child seldom breaks from this rank.

Ability grouping is a dramatic and early feedback of the teacher's opinion of the child's ability. In Burstall's study, Pidgeon (1970) reported that low ability children

reached the highest level of achievement in French when taught in heterogeneous groups with teachers holding favorable attitudes. Most detrimental circumstances appeared to be homogeneous grouping and negative attitudes.

Luchins and Luchins (1948) examined children's attitudes towards grouping. They found that children are not only aware of the differences when several ability groups are created within a grade, but strongly desire to be in the highest group. Both parents and children were found to identify the groups and the status or loss of status, associated with grouping. A more recent investigation by McGinley and McGinley (1970) corroborated the finding of awareness and ensuing implications in reading ability groups.

Labenne and Greene (1969) alleged that creation of "false positive" self-concepts by teachers in the developmental stages of an academic self-concept will have detrimental effects later on. This is created by teachers who provide false praise for poor performance, social passes where many children seem to believe that they could perform at a much higher level than they actually did. Labenne and Greene suggested that such children have to come to grips with their abilities in the later elementary grades. The recommendation was made that confrontation with reality in an atmosphere of warmth and acceptance is imperative for an accurate view

of self. To help a child develop a positive self-concept, one must help him select experiences which provide a challenge and at the same time help him maximize his opportunities for success.

Several studies indicate that low expectations tend to place a functional limit on performance and self-concept. Aronson and Mills' (1959) study showed that persons are generally unwilling to accept evidence that they are better or worse than they themselves have decided. Those who found themselves doing well experienced considerable discomfort and tended to bring their performance into agreement with their expectations. Students who did poorly but expected to do so were more satisfied and contented than even those who did well but had not expected to do so.

#### Teacher Influence

Jersild purported that the teacher, in the role of a parent, especially at the earlier grade levels, can be a strong influence as the process of self-development continues. If the teacher is harsh or unsympathetic, this may confirm the influence of rejecting parents. Even if the self-concept at home is healthy, the child must defend himself; he can imagine himself out of the classroom. The reveries of escape that occur are regressive to both self-development and academic performance.

In a study of 100 fifth graders of lower and middle social economic status, Torshen's (1971) data indicated that there was a significant relationship between teachers' evaluation of students' achievement and the students' self-concept, even when the influence of objective achievement measures was removed. Because students get feedback about their achievement more frequently from teachers than from objective achievement tests, they may regard teachers' evaluations to be more relevant assessment of their academic competence. Mendenhall (1974) corroborated the influence of a teacher effect on both self-acceptance and reading attitude.

The relationship between teachers' evaluations and concomitant expectations of the students' achievement and the students' self-concept is emphasized by theoretical formulations and a spate of studies. Davidson and Lang's (1960) study of fourth, fifth and sixth grade children gave some insight into how a child's perception of his teachers' feelings, irrespective of its accuracy, relates to his self-concept, school achievement and classroom behavior. They found that the child with a more favorable self-image more likely perceives his teacher's feelings towards him more favorably. The more positive the child's perception of his teacher's feeling, the better was his academic achievement and the more desirable was his classroom behavior as rated by teachers. Evidence from this study suggests that the

teacher's feelings of acceptance and approval are communicated to the child and perceived by him as positive appraisals. Likely these appraisals encourage the child to seek further teacher approval by achieving well and behaving in a manner acceptable to his teacher. Further evidence is provided by Brophy and Good (1973) and Rothbart, Dalfen and Barrett (1971) that teachers' attitudes and expectations about their pupils are revealed in their classroom behavior and are thus communicated to the students.

Pidgeon (1970) emphasized that teacher expectations are clearly related to pupil expectations and performance. If little is expected from pupils in a particular class or school, then the pupils will develop a similar low expectation of their own ability. Pidgeon (1972) reported on a study by Burstall on the influence of teachers' attitudes on the expectations they have of their pupils' level of performance. A scale was administered to teachers of primary school age which measured the teachers' attitude towards the teaching of French to children of low ability. After a two year period of French instruction all the children were given a French listening comprehension test. The low scoring low ability group were found to be concentrated in a small number of schools where the teachers had expressed a negative attitude towards the teaching of French to low ability children. In

a similar manner, the high scoring low ability children were found to be concentrated in those schools where the teachers had expressed more positive attitudes. The influence of teacher attitude on pupil performance is further corroborated by Palardy (1969).

Labenne and Greene (1969) construed that the teacher who believes in the fixed or static character of pupil abilities and traits is quite likely to convey this attitude and provide experiences that maintain and perpetuate these same self-concepts. If a teacher believes that a student is a failure, he may provide him with experiences so shallow that he couldn't possibly fail nor learn. The challenge will not be there or the teacher may not adjust the program to the student's ability so that he will consistently do less well than other students. If he is provided with failure after failure, he will come to believe he is a failure and act like one.

Evidence of the relationship between teacher self-appraisal and student achievement and attitude appears to be inconsistent. In a recent study, Weidner's (1973) findings indicated that an increased use of certain teaching skills (i.e. reinforcement skills, asking higher level questions, problem solving) had a significant effect on fifth grade mean achievement scores and third grade student attitude.

There were no significant differences in first and third grade achievement levels nor first and fifth grade attitude change. Concordant evidence by Edeburn (1974) and conflicting evidence by Wilson (1974) regarding a relationship between teachers' self-appraisals and students' self-concepts imply that, in addition to teacher self-perception, other variables such as teaching behaviors must be identified and studied to determine the effect they have on the self-concept.

Agents of Self-concept Change. Research studies have provided evidence that self-evaluations are subject to change. Studies in which success and failure have been experimentally induced provide some definitive evidence. Wylie (1961), in a review of fifteen such experiments offered the following tentative conclusions. The changes are most likely to involve self-ratings on the experimental task or on the evaluated characteristics, and are least likely to involve reports on global self-regard. Changes in self-rating upward after success were more frequent than were changes downward after failure. It seemed that experimental failure may also lead to various defensive behaviors such as devaluing the source of failure information, failing to recall the low evaluations accurately, engaging in behaviors which brought self-esteem in the past, or blaming others for one's failure. There may be performance decrements on the task which threatens the

student with failure, and concomitant anxiety reactions may be seen; this may be greater in a student whose basic level of self-regard is low.

Several studies have been conducted by Diggory (1966) with subjects from ages six to forty in which the subjects stated their estimated probability of success as an index of self-evaluation before every trial. The author indicated the following findings of objective criteria independent of praise, approval or gratification of other people. Discouraging conditions included low rates and low average levels of improvement in performance and previous experiences of failure on a similar task. Self-evaluations were highly resistant to change when they related to general unspecified fields of functioning, but they were quite easily changed when performance related to a well defined goal which must be achieved under clearly specified conditions of work. It was also found that the lower their estimated probability of success, the less effort the subjects put into the task performance as shown by the action potentials from their working muscles. Although the subjects appeared to do all the experimenter asked them to do, covertly they abandoned the goal and only went through the motions. In three experiments with children, strong evidence was obtained that it was the trend of success or failure rather than individual

instances of previous experiences of success or failure that indicated upward or downward changes in self-evaluation.

Besides the aforementioned objective criteria, Diggory also gave credence to the social criteria of approval/disapproval, praise or reproach that one obtains from other people as affecting one's self-evaluation. The findings indicated that the high self-evaluators were supremely indifferent to whether the model succeeded or failed. By contrast, the low self-evaluators showed quite decided upward shifts in probability of success level after the model succeeded and small downward, albeit nonsignificant, after the model failed. The author further adduced that one's approach to goals was not simply a repetitive one of already achieved goals. When a choice was given, something more difficult than the thing just completed was chosen, indicating a challenge level. Nevertheless, some people decide that they lack the power to achieve the ultimate goal that they have been approaching stepwise. They stop trying and by that decision they have formulated a prediction, an expectation, an estimate of their probability of success which is low.

The relationship between successful experience and positive self-concept and conversely, failure and negative self-concept was asserted by Bloom (1971). He stated:

Successful experiences in school are no guarantee of a generally positive self-concept, but they increase the probability that such will be the case. In contrast, unsuccessful experiences in school guarantee that the individual will develop a negative self-concept and increase the probability that he will have a generally negative self-concept. But the individual strives desperately to secure some assurance of his self-worth; if he is denied it in one area, he will search for it elsewhere. The likelihood of his finding it is considerably decreased by consistent lack of success in school (Bloom, 1971, p.23).

After an extensive review of psychological studies of the self-concept, Gergen (1971) adduced that reflected appraisal had a powerful effect on the person's self-concept. However, the strength of this effect may vary markedly. It should be maximal when the appraiser is credible and personalistic in his approach and advocates great change in self-conception. His appraisal should be positive and not contradicted by other information. Gergen further outlined five major processes in fashioning self-concepts: (1) labeling of dominant behavior patterns; (2) appraisal received from others; (3) social comparison or how he sees himself in relation to others; (4) motivation or selective choice of information from one's environment and memory which confirm his major aspirations; and (5) role playing.

Deliberately planned intervention programs for enhancement of negative self-concepts have been widely suggested. Sperry (1972) has drawn two conclusions that lend

hope for intervention programs. First, success experiences and reality changes in opportunities probably can be used to raise the expectancies of low expectancy people. Second, studies consistently stress that this be done under conditions where a person feels that the successes come from his own skill and competence.

The use of social reinforcement of classroom performance appears to be a potent agent of self-concept change. The literature is replete with studies of reinforcement. Recently, Hagerup-Neilsen (1973) has made detailed reviews of all the significant studies. It is, therefore, not necessary to repeat such a review here, except to state briefly what types of reinforcement are considered pertinent for the purpose of this study. Teachers' verbal and written feedback in the form of general positive reinforcement, encouragement, knowledge of results, modeling, expectation, variation in affective tone and personalization were deemed valuable in motivation and enhancement of self-concept (Hagerup-Neilsen, 1973; Lesser, 1972; Hess and Croft, 1972; Pidgeon, 1970; Diggory, 1966; Dinkmeyer, 1965; Dinkmeyer and Dreikurs, 1963).

There is a myriad of suggested techniques, methods and programs for the enhancement of self-concept and concomitant improvement of reading. Two such examples are

Dunne's (1972) self-concept approach to teaching reading and Carlton and Moore's (1968) self-directive dramatization approach to teaching reading and enhancing self-concept. There is a paucity of experimental studies of self-concept enhancement, especially action research where the aim is also concomitant teaching and learning.

Staines (1965) demonstrated that it is within the power of a teacher to enhance students' self-concept within a classroom situation. In the first phase of her study, teachers' verbal and situational interactions in two primary and two junior classes were analyzed to gauge the effect of these on the self-concept of individual children, as measured by a pre- and post Q-sort. The experimental program involved the two junior classes previously observed as experimental and control groups. The teacher of the experimental class rated his class and compared his ratings with the children's self-ratings. The twelve week treatment program consisted of self-referential comments and arrangement of situation by the teacher so that the child would be led by the teaching methods to see himself in various realistically positive ways. The results imply that it is possible for a teacher to consciously and deliberately change a student's concept of self while aiming at the normal results of teaching, and that good and poor adjustment are linked with the goals and

teaching methods of the typical classroom.

More recently Wolff (1973) investigated the effect of a classroom behavior modification approach on the self-esteem and achievement of 88 fourth grade students. There were significant differences in self-esteem but not so for academic achievement. Bond's (1974) data indicated that negative self-concepts of 30 kindergarten through grade four subjects were enhanced through a sequentially planned program of social reinforcements.

The results of Ely and Minars' (1973) study indicated that educational environments that incorporate mastery learning philosophy, self-pacing and formative evaluation that features direct instructor-to-student interaction can facilitate the formation of higher student self-concept.

#### RELATIONSHIP BETWEEN SELF-CONCEPT AND ACHIEVEMENT

Empirical and experimental data indicate a direct relationship between the child's self-concept, his manifest behaviors, his perceptions of others' expectations and academic performance. Lecky (1945) was one of the earlier proponents who suggested that scholastic performance tended to be consistent with the individual's self-assessment. Studies reviewed include a causal relationship between self-concept and achievement; the relationship between self-concept and motivation and self-concept and reading.

### Cause and Effect

Several studies have concluded that self-concept stands in a causal relationship to academic achievement. In an exploratory study based on the reported association between low self-concepts and reading disabilities, Wattenberg and Clifford (1964) obtained measures of mental ability and self-concept for kindergarten children. Two and one-half years later the self-concept measures were repeated with a measure of the children's progress in reading. They found that the measures of self-concept taken at kindergarten were predictive of reading achievement two and one-half years later. Lamy's (1965) study with kindergarten children corroborated this finding. She further found that predictive power was increased when self-evaluation and intelligence test scores were combined. Brookover et al. (1963, 1967) concluded that change in the self-concept of academic ability are associated with parallel changes in academic achievement.

Conversely, a number of researchers have indicated that academic achievement stands in a causal relationship to self-concept. There is a general agreement that students who fail to live up to their own and other's academic expectations, suffer significant losses in self-esteem (Lecky, 1945; Diggory, 1966). Fernald (1943), who has spent a lifetime teaching nonreaders stated, "In all these cases conscious

effort to do well resulted in a decrease in efficiency."

Purkey (1970) who has made an extensive review of studies of the relationship between self-concept and achievement purported a reciprocal relationship. Alexander (1964) stated that poor achievement results in depreciation of self-concept which led to further poor achievement. These conclusions have been corroborated by Pidgeon, 1970; Abrams, 1971; Davidson and Lang, 1960; Dinkmeyer and Dreikurs, 1963.

According to Brookover, the self-concept sets a functional limit on learning. Low academic achievement is often due to the child's definition of self as a non-learner. Labenne and Greene (1969) further suggested that a conception of inability to learn appears to be a self-fulfilling prophecy. Instead of obtaining more practice in an area of weakness, the self avoids any further experiences with the subject. The resultant effect is that low ability level is perpetuated.

#### Self-concept and Motivation

According to research in motivation, the learner has a built-in need and will for self-fulfillment and adequacy, naturally seeking from his environment those experiences consistent with this motivation. The concept of motivation is useful to the teacher if viewed as the child's

seeking behavior (Labenne and Greene, 1969). With high self-esteem a child will tend to have high aspirations, positive attitude and an expectation of success that will provide the motivation for learning and adequacy. Conversely, with low self-esteem, the child will tend to have low aspirations, attitude of discouragement and an expectation of failure that is self-fulfilling. His expectations are based on past performance and perception of others' expectations. The result is a circular effect, an enhancing cycle for the child with high self-esteem, but a vicious cycle of diminishing returns for a low self-esteem child. The basic motivating incentives that a teacher can furnish are her acceptance and approval of the child and an opportunity for successful performance (Davidson and Lang, 1960; Combs and Snygg, 1959).

#### Self-concept and Achievement

There appears to be a positive relationship between self-evaluation and academic achievement. In the first of four interrelated studies that involved a total of 1,748 elementary grade children, Coopersmith (1967) identified five different categories or types of self-esteem each of which was most significantly related to a level of academic achievement. Bills' (1959) earlier study of college students enrolled in a reading improvement course indicated similar groupings that were likewise closely related to academic

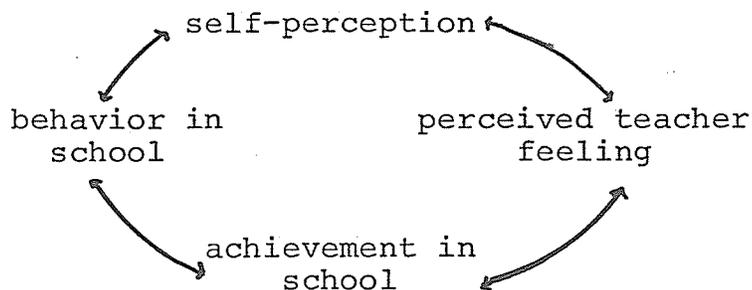
achievement evidenced by improvement of grade point averages.

Davidson and Lang (1960) investigated children's perceptions of their teachers' feelings toward them related to self-perception, school achievement and behavior. The study involved 203 fourth, fifth and sixth grade children. They found a positive relationship between favorable perception of teachers' feelings, academic achievement and desirable classroom behavior. Children who were rated as troublesome also perceived their teachers' feelings towards them as less favorable than children who were rated as eager and co-operative. Figure 2.01 illustrates the inter-relatedness of self-perception, perceived teacher feeling, achievement and behavior in school. For example, a child who is not doing well in school will have a negative perception of his teacher's feelings toward him; negative perceptions will in turn tend to lower his efforts to achieve in school and/or increase the probability that he will misbehave. His poor school achievement will aggravate the negative attitude of his teacher toward him, which in turn will affect his self-confidence - a vicious entanglement.

The relationship between inadequate self-concept and academic underachievement, high academic achievement and adequate self-concept was further substantiated by Everett, 1972; Fink, 1962 and Roth, 1959. Brookover et al. (1964)

FIGURE 2.01

RELATIONSHIP OF SELF-PERCEPTION, PERCEIVED TEACHER  
FEELING, ACHIEVEMENT AND BEHAVIOR IN SCHOOL



suggested that self-concept is a key factor in role performance and that changes in self-concept should result in changes in performance. These findings imply that, if changes in self-concept may lead to changes in academic performance, then it is also possible that changes in academic performance may lead to changes in self-concept. Brookover's finding that there are general and specific self-concepts of ability suggest that one might change self-concepts in specific subject areas by increasing a student's performance without necessarily first changing his general academic self-concept.

#### Self-concept and Reading

Research findings generally indicate a relationship between self-concept and reading. Fitzsimmons et al. (1969)

demonstrated a direct relationship between early reading failure in the primary grades and performance difficulty in high school. Bodwin (1957) found a relationship between immature self-concept and reading disability and immature self-concept and arithmetic disability in grades three to six. In earlier related studies, a significant relationship between reading and self-concept was predicted by Lumpkin (1959), Blackham (1954), Kurt and Swenson (1951) and Nason (1948). More recently, a similar relationship was found by Glick (1968), Lamy (1965) and Wattenberg and Clifford (1964) with early primary children. This relationship was not evidenced by Lawson (1974) at the first and third grade level; a significant relationship was evidenced at the fifth grade level. Williams (1973) found no relationship between self-concepts and reading achievement at the first and second grade level. This could be a function of the self-concept measurement instrument. An adaptation of Coopersmith's self-esteem inventory had been read to the subjects. The low coefficients of stability of .63, .63 and .67 established in three pilot studies could well be a function of the concept level that may have exceeded the subjects' understanding.

Leeds (1971) reported an unpublished study by W. J. O'Connor designed to explore the relationship between attitudes toward reading and reading ability at the grades

one to six level. He found that severely disabled readers displayed significantly higher avoidance attitudes toward reading. The reading situation similar to a remedial reading situation elicited the strongest avoidance attitude among the primary grade disabled reader. Mager (1968) and Roth (1950) substantiated the finding of avoidance attitudes. Leeds (1971) and Homze (1962) stated that remedial reading programs should have a second dimension of increasing approach attitudes towards the child as a reader as well as developing reading skills.

#### TECHNIQUES EMPLOYED IN MEASUREMENT OF SELF-CONCEPT

The 1950's saw a deluge of studies concerned with the measurement of self-concept. These have been generally based upon the theoretical formulations of personality theorists such as Rogers (1954), Jersild (1952), Cattell (1950), Lecky (1945) and Osgood's (1957) semantic differential measurement of meaning.

Wylie (1961) has made detailed reviews of all the significant studies done up to 1960. It is therefore not necessary to repeat such a review here, except to state that these were the empirical explorations that bridged the gap between theoretical formulations and techniques employed in measurement of self-concept. In her review of instruments which purport to measure a general evaluative attitude toward

self, Wylie summarized 28 sets of self-descriptive Q-sorts and 83 sets of rating scales, objective check lists and questionnaires. All but two of these measures have been used in studies during the 1950's. She concluded that no investigator to date had satisfactorily conceptualized or coped with the difficult measurement problem of construct validity and reliability. Likewise, little empirical work had been done to define the properties of the self-concept operationally and relate them to theoretically relevant variables. According to Cattell (1950), knowledge of dynamic psychology has arisen largely from clinical and naturalistic methods and secondarily from controlled experiment. Findings of the former, and even of the latter, are in the process of being placed on a sounder basis by the application of more refined statistical methods. Hall and Lindzey (1957) claimed that early stress upon quantification results in artificial and premature congealing of an area that is still in an exploratory stage. Wylie's criticism has been aimed at an exploratory stage of self-concept measurement. Osgood's (1957) measurement of meaning and Cattell's (1950) factor-analytic research have contributed much to empirically define and quantify the properties of the self-concept.

Gordon (1966) reported that researchers have generally

used three categories of measurement procedures: self-report, inference based on the observation of behavior, and inference based on projective techniques. He maintained that debate as to the superiority of one approach over the other is meaningless. He stated:

In all data gathering, the data collected are a function of the questions asked and the techniques used; it makes little sense to assume that one source is better than another at this stage of the game. Each technique has advantages and disadvantages and offers practical utility for the teacher and researcher (Gordon, 1966, p.54).

Techniques of measurement reviewed here will include self-report and inference based on the observation of behavior. Projective techniques, devolved from personality testing, require specialized training and are beyond the scope of this study. This category includes projective measurements such as the Rorschach, Thematic Apperception Test, body image and word association. These are not techniques to be used in the normal course of events by researchers, teachers or guidance counselors unless specifically trained.

### Self-reports

Major critics of self-reporting hold that while the self-concept is what an individual believes about himself, the self-report is only what he is willing and able to disclose to someone else. Accuracy depends upon such factors

as clarity of awareness, command of adequate symbols for expression, social expectancy, co-operation and freedom from threat. Although a similar view was expressed by Wylie (1961), she concluded that subjects' evaluative self-ratings tend to correlate positively with the evaluative ratings which these subjects assign to others. Gordon (1966) contended that the concern is not with accuracy of whether it resembles someone else's "objective reality", but with the question of truthfulness and meaningfulness. In essence this view can best be summarized by a statement by Strong and Feder (1961):

Every evaluative statement that a person makes concerning himself can be considered a sample of his self-concept from which inferences may then be made about the various properties of that self-concept (Strong and Feder, 1961, p.176).

The self-report was found to be useful in getting at meaningful self-attributes quickly and with a minimum of effort. Numerous other studies have been based on the assumption that evaluative statements made about oneself are valid and reliable data (Brookover et al., 1964; Rogers, 1954). Coopersmith's (1967) and Brandt's (1958) work indicate that children generally are fairly accurate in assessing themselves when the task being assessed is something with which they have had experience at the intermediate and secondary levels.

Self-report techniques include Q-sorts, semantic

differential scales, self-report check lists, questionnaires and sentence completions.

Q-sort. Q-sort is a method rather than an instrument that requires a subject to sort a number of self-reference statements (usually 70 to 150) into a series of classes. In a typical application, a large number of personality descriptive items are sorted into a specified number of piles which are arranged on a continuum according to the degree to which they are characteristic of the self-concept. This can be repeated numerous times with different instructions such as "how I see myself, how my parents see me, how my friends see me." Each time the individual is forced to place a specified number on each pile so as to yield a seemingly normal distribution (Cummins, 1963). Wylie summarized, in chart form, 28 sets of Q-sorts that had been used in studies in the 1950's.

Semantic Differential. The semantic differential scales are based on pairs of adjectives measuring the "meaning systems" of individuals developed by Osgood (1957). Basically it involves sets of polar adjectives such as "happy-sad", "slow-fast". The subject rates himself somewhere along the continuum to indicate his self-attitude for each set of adjectives.

Self-report Scales. Self-report scales include check lists,

inventories and questionnaires. The last two decades have seen a spate of such scales too numerous to report. Wylie summarized 83 instruments which purported to measure an evaluative attitude toward self. Purkey (1970) listed four better known inventories: (1) Coopersmith's self-esteem inventory for use with children ages eight to ten; (2) Bledsoe's self-concept scale, a checklist of 30 trait-descriptive adjectives for use with third to eighth grades; (3) Davidson and Greenberg's self-appraisal scale which had been used with children from a deprived background to fifth grade; (4) Gordon's How-I-See-Myself scale devised from categories developed by Jersild (1952) out of the compositions of children. On the surface, the scale assesses attitudes toward school, peers, physical body and one's own emotion. According to Gordon (1966), factor analysis reveals additional information. The scale consists of 40 items, elementary form and 42 items secondary form. Each item is a dichotomy on a five-point numerical rating.

Gordon (1966) further reports on two techniques for assessing younger children: (1) Meyerowitz's technique for preschool children, and (2) Engel and Raine's laddering technique with primary children. For a more complete description of these and other inventories, reference is made to Purkey (1968) and Fox, Luszki and Schmuck (1966).

Sentence Completion and Children's Writing. These provide a connecting link between self-report and inference techniques. They belong to self-report if the children have been consciously instructed to write about themselves in children's writing or if completed sentences are quantified at face value or surface inferences made (Yarrow, 1960). Gordon (1966) cautioned that only the skilled should make any "depth" inference from such material.

#### Observation of Behavior

According to Gordon (1966), observation of behavior as a measurement technique involves recording, coding and inferential analysis. The analysis is based on the assumption that all the child's behavior aspects of his self-organization and his behavior is understood only in context.

Observations can be structured through two main categories: (1) open system approach characterized by the specimen description (Prescott, 1957); (2) closed system approach where specimen descriptions are kept over a long period of time so that recurring patterns in the child's behavior will begin to emerge. Wright (1960) has developed a descriptive chart of observational techniques that include the various methods in both of the above categories.

Many researchers take the position that the most

valid approach to the self must be based upon observation and behavior. It is necessary to achieve careful design and control of timing for data gathering so that an adequate sampling of the child's behavior is secured (Dinkmeyer, 1965; Prescott, 1957).

#### CONTINGENCY REINFORCEMENT PROGRAMS

Contingency management which deals with managing reinforcers provides a simple experimental approach whereby the teacher's behavior can be systematically organized to reinforce appropriate behaviors. The principles of operant conditioning are employed, but not the intact model of the operant conditioning laboratory. Franks and Susskind (1969) have represented behavior modification programs on a four category continuum. The first category, behavior therapy by psychophysiologists, involves the neurological modification of the central nervous system. The second category, desensitization, deals with neurotic behavior, faulty learning, extinction and relearning or counterconditioning.

Skinner's operant conditioning, the third category, is likened to Thorndike's habit formation or learning by trial and error. Skinner's key development is suggested to be a standardized apparatus for the controlled study of habit formation and a cumulative recording method whereby the

learning may be depicted in a highly meaningful and precisely quantifiable manner. The operational method of conditioning closely approximates the unrestricted behavior of individuals in their natural environment. It is argued that, by the method of rewarding successful approximations to the required pattern, it is possible to shape the individual's behavior in a controlled and controllable fashion.

The fourth category deals with social reinforcement and modeling procedures as purported by Bandura and Walters (1963). The research studies that provide the underpinning for this study are found on the continuum between categories three and four, Skinner's operant conditioning, and Walter and Bandura's social reinforcement. Studies whereby the principles of operant conditioning are utilized to systematically organize social reinforcement and modeling procedures within a classroom setting were reviewed.

Harris (1972) purported that the most important facets of learning theory serves to indicate the basis for much of the theory and many of the techniques of behavior modification. Learning, defined as a relatively permanent change in performance as a result of practice and experience, cannot be measured directly. Behavior modifiers use performance changes as their criteria for success.

Baer and Wolf (1968) demonstrated the potential for social reinforcement implicit in the ordinary behavior of the preschool teacher directed toward her children. They asserted that a reinforcement contingency may exist in any of the forms of attention that teachers offer to children even though the teacher has neither the intent nor the ambition to strengthen the particular response of the child which has captured her interest. Ultimately, the teacher's intent is irrelevant; the behavior changing function of her responsiveness remained in its stimulus function for the child. Thus, the experimental design of these studies embodied simply a deliberate manipulation of the teacher's pattern of attending to specific behaviors of her children. The five successive stages of the design exemplified the basic logic of the laboratory studies of operant conditioning in a preschool setting. The child's behavior was observed to establish a baseline. The teacher set herself to detect and reinforce every instance or, initially, approximations of desired behavior.

In summary of the studies, Baer and Wolf (1968) affirmed that the teacher was doing nothing unusual or alien to her everyday professional behavior. What had been controlled was not what the teacher did, but when she did it. No new stimulus had been introduced; an existent one had been

moved from one contingency to another. They concluded that the reinforcement contingency was central to education. They stated:

The teacher cannot really choose not to shape the behavior of these children; she can only choose not to care and let the contingencies fall where they may; or to begin the systematic analysis of her profession and thereby the systematic education of preschool children toward specified goals (Baer and Wolf, 1958, p.128).

The authors cautioned that some children may not respond to social contingencies.

There is an abundance of research utilizing behavior modification procedures with children with physical handicaps, learning deficits and economic or social disadvantages. Much of this has been to reduce asocial, disruptive or inattentive behavior and to improve academic performance. Haring and Philips (1972) cited a number of studies in which other investigators had been successful in using behavior modification procedures within a classroom setting. Barrish, Saunders and Wolf (1969) reported the use of individual contingencies for group consequences. Their study was carried out in a fourth grade classroom of twenty-four students. The disruptive behavior of seven students was successfully modified within the classroom setting.

In an extensive review of studies, Harris (1972) concluded that, although there is a spate of research in empirical and laboratory settings, to date there has been

little systematic research in the application of social reinforcement by teachers in the regular classroom beyond the successful case studies reported by Becker et al. (1967) in which no attempt was made to evaluate these procedures through experimental reversals. Hall, Lund and Jackson's (1972) findings indicated that the contingent use of teacher attention can be a quick and effective means of developing desirable classroom behaviors.

Becker et al. (1967) investigated the use of teacher attention and praise in reducing classroom behavior problems in a disadvantaged area. The results demonstrated that quite different kinds of teachers can learn to apply behavioral principles effectively to modify the behavior of problem children. The investigations were carried on in elementary classrooms with normal teacher-pupil ratios. The importance of differential social reinforcement in developing appropriate behavior in children has been substantiated by Madsen et al., 1968; Thomas, Becker and Armstrong, 1968; Thomas, Nielsen, Kuypers and Becker, 1968.

It has been suggested that some children may not respond equally to social contingencies of reinforcement. Becker et al. (1967) found that the child who did not respond to social contingencies did so when social contingencies were combined with remediation instruction or objective criteria for success. Higgins (1967) and Terrell et al. (1959)

indicated that lower class children worked best for tangible items and middle class children best for social approval or success feedback. More recent research indicated that elementary school children of lower socioeconomic status selected a verbal reinforcer more frequently than a material reinforcer (Witryol et al., 1968). Runyon and Williams (1972) investigated reinforcer effectiveness in three categories of reinforcement: verbal and social, tangible and manipulative, knowledge of progress with 200 low and middle class junior high students. They found that the subjects performed equally well for the most and least preferred reinforcers.

In a study of the effect of behavior modification techniques upon the production and self-evaluation of retardates, Carter (1973) found that not only was the subjects' production increased, this technique helped the clients to evaluate themselves more realistically. The implication was made that the creation of a positive environment contributed to a child's improved self-image which perhaps led to higher production and better work adjustment. Additional research is necessary to investigate this implication.

### Conclusions

In summary, both theoretical formulations and experimental data indicate a direct relationship between the

child's self-concept and academic performance. In the light of the findings of Brookover et al. (1964) with adolescents and Coopersmith (1967) with elementary students, that there is a significant relationship between self-concept, academic performance and appraised ability, and Wattenberg and Clifford's (1964) finding of a low association between self-concept measures and intelligence test scores at the kindergarten and early primary levels, it is reasonable to infer that the child's self-concept has a direct bearing on his intellectual efficiency and academic performance.

The child's assessment of self is related to the perception of significant people. His expectations are based upon past performance and perception of others' expectations. The result is a circular effect, enhancing for the child with a high self-esteem, but a vicious cycle of diminishing returns for the low self-esteem child. The cumulative effect of success is a powerful influence on the development of a positive self-concept.

The school environment has a direct influence on the child's self-concept in dispensing praise and reproof, acceptance and rejection, success and failure. A significant relationship is evidenced between teachers' evaluations and concomitant expectations of the students' achievement, the students' self-concepts and academic performance. Evidence is given that the teacher's behavior is the key

factor as an intervention for enhancement of low self-concepts. Suggested procedures for intervention programs included successful experiences and changes in opportunity under conditions where a person feels that the successes come from his own skill and competence. Use of social reinforcement of classroom performance appeared to be a potent agent of self-concept change.

Although there is some controversy over the reliability and validity of self-concept measurement, Gordon (1966) contended that the reliability and validity of any approach was governed by its utility as a predictor of behavior and cue for teacher behavior rather than by any artificial standard.

Results of some studies found that operant conditioning provided a simple experimental approach whereby the teacher's behavior can be systematically organized to positively reinforce the child who is having difficulty. Teachers' behavior inconsistently reinforces children positively or negatively. A contingency reinforcement program can provide a systematic scheme whereby the teacher can consistently positively reinforce the appropriate behaviors.

Investigation of such a combination as a contingency management program and enhancement of low self-concepts within a classroom setting could well hold important implications for the educative process.

## CHAPTER III

### DESIGN AND PROCEDURES

The present study sought to determine the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers who showed indications of reading difficulty and negative self-concepts in the first grade. For this purpose, an experimental program was conducted with a sample of first grade students who were randomly assigned to a treatment and control group. The questions of major interest were:

- (1) What effect does a contingency reinforcement program have on the self-concept and reading achievement of beginning readers who show indications of reading difficulty and negative self-concepts?
- (2) Is there a positive relationship between the enhancement of the self-concept and improvement in reading achievement?

The design and procedures are discussed in this chapter. The discussion includes the description of:

1. The Sample;
2. The Instruments;
3. Scoring Procedures;
4. Treatment Program;
5. Pilot Studies for Procedures;
6. Study Procedures;

7. Statement of Hypotheses;
8. Method of Analysis.

#### THE SAMPLE

The subjects for this study were thirty-two first grade students, seven girls and twenty-five boys drawn from three elementary schools in Assiniboine South School Division in the Winnipeg suburb of Charleswood. While represented by both extremes of the socioeconomic scale, the suburban area is characterized as a predominantly middle class area. These children were distributed in eight different classrooms. The first grade teachers were asked to identify pupils who were experiencing difficulty in reading and who had low or negative self-concepts. Sixty-one out of approximately 215 pupils were so identified by the teachers. Thirty-four of the sixty-one pupils were further identified as having reading difficulty and low self-concepts on pre-tests administered by the experimenter. The study sample consisted of thirty-two subjects; two subjects were lost in the first phase of the study. One subject from the control group moved out of the division. Another was dropped from the study due to adjustment problems. The teacher didn't feel she could adequately carry out the program with him.

The socioeconomic level, intelligence and sex variables were not controlled in this study.

## THE INSTRUMENTS

Experimental self-concept scale The self-report was an adaptation of Gordon's (1966) How-I-See-Myself self-concept 48 item scale for grades four to six. It was adapted in concept and vocabulary levels suitable for first grade. A greater proportion of items (15 out of 30) relating to academic self-view was included in an effort to obtain a measure of academic self-concept as well as obtaining a measure of the general self-concept which included all the 30 items of the scale. A sample of the self-concept scale and scoring sheet are included in Appendix B.

Reliability of the scale was established by a test-retest correlation coefficient. The experimental scale was administered twice, five to seven days apart, to the total grade one population of elementary schools other than the three included in the experimental program in Assiniboine South School Division. The resulting reliability coefficient established on a test-retest of 65 pupils was .74. This reliability was deemed sufficient to use the data for interpretation.

Learning rate tests. Pre- and post-learning rate tests were devised to measure reading achievement. The aim of these tests was to measure the child's capacity to learn sight words. Words to be taught were chosen from Mills Learning Methods Test, grade one

level. Prior to the test, the word cards from the grade one level were presented to the subjects in each of the three schools. Any words that were identified were eliminated. A random sampling of 10 words for the pre-test and 15 words for the post-test were taught. Prior to the selection of post-test words, the word cards from the grade one level were again presented to the subjects in each of the three schools in order to eliminate any known words. The learning rate was obtained from three sub-tests based on the words taught:

(a) Word discrimination. Twenty items to test the child's ability to select one of three printed words named by the examiner;

(b) Words in context. Nine and eleven sentences for pre and post tests, respectively, to test the child's ability to read the words taught in context;

(c) Words in isolation. Ten and fifteen words for pre and post tests, respectively, to test the child's ability to recall the words taught by sight.

#### SCORING PROCEDURES

Experimental self-concept scale. This scale was scored by assigning a score of one, two or three to each item. A score of three was assigned for a positive response, a score of two for a "sometimes" response, and a score of one for a negative response. The highest

possible score was 90 and the lowest was 30. Thus the highest and lowest scores possible were 90 and 30 respectively.

Learning rate test. Each of the three sub-tests was scored as the number of words that were correctly identified on the three sub-tests: (a) word discrimination, (b) words in context, and (c) words in isolation. Each of these scores was then transformed to a t-score. The three t-scores were totaled to obtain one score that indicated the learning rate. Computation and transformation of scores are shown in Figure 3:01.

FIGURE 3.01

EXAMPLES OF SCORES OBTAINED ON THE LEARNING RATE TEST

<u>Name</u>	<u>Sub-test Raw Scores</u>			<u>Sub-test T-scores</u>			<u>Total Learning Rate Score</u>
	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	<u>(a)</u>	<u>(b)</u>	<u>(c)</u>	
Mary . .	11	2	5	46.6	47.7	52.3	146.6
Tom . .	10	8	9	44.6	67.7	65.7	178
John . .	18	3	3	60.6	51	45.7	157.3
Dick . .	5	1	1	34.6	44.3	39	117.9

## TREATMENT PROGRAM

The treatment program consisted of positive reinforcement for reading and reading related (language arts) tasks. Three reinforcers were utilized: social positive reinforcement, successful performance, and reading relevancy. Figure 3.02 is a summary of the ten week treatment program. A more detailed description of each phase is included in Appendix E.

No baseline measurement for each teacher was obtained prior to the treatment program since increase in quantity of positive reinforcement by the teacher was not a criterion measure of improvement. The recommended minimum of 8-10 reinforcements was based on observation in the pilot study. Haring and Philips (1972, p.81) suggest that "a return to baseline is not usually necessary." Rather, a refinement of the earlier treatment of general positive reinforcement was made to create more powerful reinforcers. Additional refinements in the form of reinforcements through explanation, encouragement and expectancy were made throughout the intervention program. The teacher made her decisions regarding the quantity and quality of reinforcement on the basis of her own and experimenter's gathered data. A sample of the teacher's and examiner's reinforcement record forms is included in Appendix D.

Block's (1971) and Quick's (1973) suggested principles formed the frame of reference for the "success in work" variable. Monroe

Figure 3.02

SUMMARY TABLE OF TREATMENT PROGRAM  
(daily quantity and type of reinforcement)

Reinforcer	Phase I		Phase II		Phase III		Phase IV	
	Week 1 & 2	Minimum Frequency	Week 3 & 4	Minimum Frequency	Week 5, 6, 7	Minimum Frequency	Week 8, 9, 10	Minimum Frequency
1. <u>Social Reinforcement</u>	Continuous General positive reinforcement	8-10	Continue: General positive reinforcement	4-6	Continue: General positive reinforcement	3-4	Begin partial scheduling: 8th week - 75% 9th week - 50% 10th week - 25%	7-8 5-6 2-3
			Add: Explanation Encouragement Peer recognition Modeling Shaping (as necessary)	1-2 1-2 1 1	Explanation Encouragement Peer recognition Modeling	1 1 1		
	Daily Minimum Total . . .	8-10		8-10	Add: Expectancy Contractual agreement	1-2 1		2-8
2. <u>Success in Work</u>	Continuous success paired with positive comment written on all independent work; comment should be read to child.		Continuous success; add challenge level of 4 or 2 items; continue written comment that is read to child.		Increase challenge level from 4 to 4 items of assignments. Continue written comment of explanation or encouragement, that is read to child.		Increase challenge level to 3/4 of items, part of which can be completed orally at the beginning of the phase.	
3. <u>Reading Relevancy</u>	First week - Activity A-1, if necessary; minimum of one activity daily from any one of the three suggested pools of activities (Appendix G) for the 10 week period. If more than one activity is chosen daily, each should be from different pools. One activity can be continued for several days if interest is retained. Since each pool is set up in an overlapping progressive continuum, it is suggested that the activities be chosen in a descending order.							

(1951) provided the basis for the reading relevancy variable. A sample of suggested activities for reading relevancy is likewise included in Appendix G.

#### PILOT STUDY FOR PROCEDURES

The pilot study subjects were five first-grade boys from Dieppe School in Assiniboine South School Division No. 3. Six students were initially identified by the classroom teacher as experiencing reading difficulty and having low self-concepts; five of these six were so identified by the experimental self-concept and reading difficulty criterion tests.

The main purpose of the pilot study was to test and refine the criterion tests for learning rate, experimental procedures and development of a realistic pool of comments to be used as reinforcers. These procedures included recording and coding observations, time sampling, refining record forms and determining a realistic number of positive reinforcements that would facilitate classroom teaching concomitant with positive reinforcement. A refinement of directions and teacher orientation to the treatment program and development of realistic pools of comments for use as positive reinforcement were facilitated during the three week study program. Three days were spent in each of the four phases.

## PROCEDURES

The experimental self-concept scale and the Part 8 sub-test of the Canadian Readiness Test were administered in February, 1974 to the children who had been identified by their teachers as experiencing reading difficulty and having low self-concepts. These two instruments were used to identify the target population. Because of the wide range of scores, the low self-concept subjects were stratified into two groups, "low-low" and "medium-low" self-concepts. Stratified ("low-low" and "medium-low") random sampling procedures were used to assign subjects to experimental and control groups. The resulting sample consisted of eighteen experimental and sixteen control subjects. Subsequently, two subjects were lost which left eighteen experimental and fourteen control subjects. Each of the eight classrooms had from one to four experimental subjects; all but one classroom had one or more control subjects. The teachers were not made aware of the identity of the control subjects.

The treatment program consisted of positive reinforcement for reading and reading related (language arts) tasks for a ten week period, approximately one hour per day during the language arts period. The positive reinforcement program was carried out by the classroom teachers. The program was divided into four phases. A short (one-half to one hour) pretraining session was held in each school with the teachers by the experimenter prior to the treatment

program. Subsequently, such a session was held at the beginning of each phase. At each of these sessions, a one or two page summary of the respective phase plus a "handout" giving further background information were discussed with the teachers. A sample of these summaries and "handouts" are enclosed in Appendices E and F. The experimenter was also available weekly in each of the three schools to answer any questions regarding the program.

As a check on the positive reinforcement variable, the experimenter observed for ten to forty minutes in each classroom once every six-day cycle on a random basis. Rater reliability was established by having another rater observe in six to eight sessions, approximately ten percent of the observations, with the experimenter. Each teacher was asked to fill out a "Teacher's weekly record for measuring positive reinforcement" form to provide the teacher with some further feedback and awareness regarding the quantity of positive reinforcement being given each child. To measure the "successful performance" variable, each teacher was asked to fill out the "Reading Activities Checklist" daily during the first phase and twice a week during each subsequent phase. The "reading relevancy" variable was measured by having each teacher list the activity or activities carried out from the given pool of suggested activities. A sample of each of the instruments used in the study are enclosed in Appendix D.

At the end of the ten-week treatment program the experimental self-concept scale was readministered to both the control and experimental groups. A post-learning rate test was administered to measure improvement in reading achievement.

#### STATEMENT OF HYPOTHESES

The present study was concerned with the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers. A secondary concern was to determine any relationship between enhancement of self-concept and improvement of reading achievement. To guide this investigation the following null hypotheses were formulated:

1. There is no significant difference in the change of general self-concept between the treatment and control groups.
2. There is no significant difference in the change of academic self-concept between the treatment and control groups.
3. There is no significant relationship between the enhancement of the general self-concept and improvement of reading achievement.
4. There is no significant relationship between the enhancement of the academic self-concept and improvement of reading achievement.

## METHOD OF ANALYSIS

The Mann-Whitney U-Test for differences between independent samples was the statistical procedure employed to test for any significant differences in self-concept between the control and experimental group. The Mann-Whitney U-Test was employed because of the badly skewed data obtained, equivalent to the lower tail end of a normal distribution.

A critical ratio test was calculated to test the relationship between enhancement of self-concept and improvement in reading achievement. A significance of .05 was required before differences were deemed significant.

## CHAPTER IV

### ANALYSIS OF THE DATA

Before presenting the analyses, a brief review of the basic design and procedures is presented below.

The major purpose of this study was to determine the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers in the first grade who showed indications of having reading difficulty and having a negative self-concept. A secondary concern was to determine whether there was a positive relationship between improved self-concept and improved reading achievement.

A sample of thirty-two first grade students from three elementary schools in a middle class suburb was divided into a treatment and control group on a stratified random basis (low and medium low self-concept scores). Pre- and post-treatment scores on an experimental self-concept scale and a Learning Rate test were used to monitor any change in self-concept and reading achievement under experimental conditions.

The non-parametric Mann-Whitney U-test was employed to test for significance the effect of the treatment program

on the self-concept. Spearman's rank-order correlation and a calculated critical ratio were employed to investigate the relationship between enhancement of self-concept and improvement of reading achievement.

In the presentation of data, each hypothesis is listed and followed by the analysis. Some additional findings are also presented.

#### Hypothesis 1

There is no significant difference in the change of general self-concept between the treatment and control groups.

Table 4:01 presents the results of the general self-concept score differences between the experimental and control groups.

The table indicates that there was a difference, significant at the .03 level, between experimental and control groups on pre- and post-treatment self-concept difference scores.

Since this study was designed to isolate and investigate the effect of the experimental treatment, it was important to determine whether the experimental and control groups were equal in self-concept measures initially. Therefore, a Mann-Whitney U-test was employed to test the difference between the pre-treatment experimental and control group scores. The table indicates that there was a difference,

significant at the .01 level, between experimental and control groups on pre-treatment self-concept scores. There are no significant differences indicated between the experimental and control groups on the post-treatment self-concept scores.

TABLE 4:01

MANN-WHITNEY U-TEST RESULTS FOR GENERAL SELF-CONCEPT SCORE DIFFERENCES BETWEEN EXPERIMENTAL AND CONTROL GROUPS

Score Differences	Z Score	P Value
Pre-test . . . . .	2.83	.0026
Post-test . . . . .	0.53	.1992
Pre-post . . . . .	2.22	.016

As indicated by the table, a difference in pre- and post-measure of self-concept, significant at the .01 level was found between the experimental and control groups.

The hypothesis is rejected.

#### Hypothesis 2

There is no significant difference in the change of academic self-concept between the treatment and control groups.

Table 4:02 presents the results of the academic self-concept score differences between the experimental and control groups.

TABLE 4:02

MANN-WHITNEY U-TEST RESULTS FOR ACADEMIC SELF-CONCEPT  
SCORE DIFFERENCES BETWEEN EXPERIMENTAL AND CONTROL GROUPS

Score Differences	Z Score	P Value
Pre-test . . . . .	2.69	.0107
Post-test . . . . .	1.80	.0790
Pre-post . . . . .	0.97	.249

The table indicates that there was a difference, significant at the .01 level, between experimental and control groups on the pre-treatment academic self-concept scores. However, the differences indicated between the experimental and control group post-test scores are not significant. The results of the pre-post test differences indicate no significant difference between the experimental and control groups.

The hypothesis is not rejected.

### Hypothesis 3

There is no significant relationship between the enhancement of the general self-concept and improvement in reading achievement.

A critical ratio was employed to investigate the relationship between the enhancement of the general self-concept and improvement of reading achievement between the experimental and control groups. Table 4:03 presents the

correlation coefficients and Z-score transformations for the two groups.

TABLE 4:03

SPEARMAN RANK ORDER CORRELATION OF SELF-CONCEPT TO  
READING ACHIEVEMENT DIFFERENCE SCORES BETWEEN EXPERIMENTAL  
AND CONTROL GROUPS

Group	Spearman Rho	Z Transformation
Experimental . . . . .	0.258	0.266
Control . . . . .	0.51	0.563

The critical ration (CR) between the differences of the Z scores and the standard error was calculated.

$$CR = \frac{d}{St_d} = \frac{Z_1 - Z_2}{\sqrt{\frac{1}{N_1-3} + \frac{1}{N_2-3}}} = \frac{.303}{.397} = 0.763$$

The critical ratio of 0.763 is well below the .05 level of significance. The null hypothesis is accepted.

However, further analysis yielded additional information. An investigation of the data by regrouping all subjects, experimental and control, into high self-concept and low self-concept according to the rank order of the difference scores was further employed (Bruning and Kintz, 1968, p.202-3). Rank one to seventeen formed the low self-concept group and rank eighteen to thirty-two formed the high self-

concept group. A Mann-Whitney U-test was then employed to determine whether there was a significant difference in reading achievement between the high and low self-concept groups. The resultant  $Z$  score of 3.417, significant beyond the .001 level indicated a relationship between enhancement of self-concept and improvement of reading achievement.

#### Hypothesis 4

There is no significant relationship between the enhancement of the academic self-concept and improvement of reading achievement.

A spearman rank order correlation coefficient and a subsequent critical ratio were employed to investigate the relationship between academic self-concept and reading achievement. Table 4:04 presents the results of this analysis.

The data in Table 4:04 indicates that the difference

TABLE 4:04

SPEARMAN RANK CORRELATION OF ACADEMIC SELF-CONCEPT TO  
READING ACHIEVEMENT PRE- AND POST-TREATMENT DIFFERENCE  
SCORES AND SUBSEQUENT CRITICAL RATIO

Group	Spearman Rho	Z Trans- formation	Z Score Difference	Standard Error	Critical Ratio
Experi- mental	0.10	.10	.046	.397	$\frac{.046}{.397} = 0.115$
Control	0.147	.146			

between the correlation coefficients of academic self-concept to reading achievement between the two groups was non-significant. The null hypothesis was not rejected.

#### Additional analysis

Table 4:05 presents the results of the reading achievement score differences between the treatment and control groups.

The table indicates that there was a difference, significant at the .05 level, between experimental and control groups on pre- and post-treatment reading achievement difference scores. There is also a difference indicated between the experimental and control groups on pre-treatment reading achievement scores, significant at the .05 level. There are no significant differences indicated between the experimental and control groups on the post-treatment reading achievement scores.

TABLE 4:05

MANN-WHITNEY U-TEST RESULTS FOR READING ACHIEVEMENT SCORE DIFFERENCES BETWEEN EXPERIMENTAL AND CONTROL GROUPS

Score Differences	Z Score	P Value
Pre-test . . . . .	2.03	.0508
Post-test . . . . .	1.58	.1145
Pre-post . . . . .	2.02	.0519

Table 4:06 presents the results of Spearman's coefficient of rank order correlation of the difference scores of the total group between self-concept and reading achievement.

TABLE 4:06

SPEARMAN RANK CORRELATION OF SELF-CONCEPT TO READING ACHIEVEMENT PRE- AND POST-TREATMENT DIFFERENCE SCORES

Paired Measurement	Spearman Rho	df	t Score	P Value
General Self-Concept and Reading Achievement . . . . .	0.51	30	3.248	.01
Academic Self-Concept and Reading Achievement . . . . .	0.194	30	1.12	.20
Academic and General Self-concept . . . . .	0.723	30	5.688	.005

Using Ferguson's (1966, p.220) method, one may test the significance of Rho by using a  $t$  test.

$$t = P \frac{\sqrt{N-2}}{1-p^2} \text{ with } N-2 \text{ degrees of freedom.}$$

Table 4:06 indicates that there was a relationship between general self-concept and reading achievement, significant at the .01 level. Also, a relationship between academic and general self-concept is indicated, significant

at the .005 level. However, academic self-concept and reading achievement relationship was non-significant.

#### SUMMARY OF FINDINGS

Following is a summary of findings resulting from the investigation of the effect of a contingency reinforcement program on the self-concept and reading achievement of beginning readers.

(1) There was a significant difference (beyond the .05 level) in the change of the general self-concept between the experimental and control groups.

(2) There was a significant difference (at the .05 level) in the change in reading achievement between the experimental and control groups.

(3) There was no significant difference in the change of academic self-concept between the treatment and control groups.

(4) There was no significant relationship between the change of the general self-concept and improvement of reading achievement.

(5) There was no significant relationship between change in academic self-concept and change in reading achievement.

(6) There was a significant relationship (at the .01 level) between total general self-concept and reading

achievement. The relationship between academic and general self-concept of the total group was highly significant, beyond the .01 level.

## CHAPTER V

### SUMMARY AND CONCLUSIONS

The specific purposes of this study were to answer the following questions:

(1) Can the child's general self-concept be enhanced through reinforcement contingencies?

(2) Can the child's academic self-concept be enhanced through reinforcement contingencies?

(3) Does the enhancement of the general self-concept result in a concomitant improvement of reading achievement?

(4) Does the enhancement of the academic self-concept result in a concomitant improvement of reading achievement?

Analysis of the data resulted in the following findings:

(1) The contingency reinforcement program did result in significant differences in general self-concept and reading achievement between the experimental and control groups. However, there was no significant difference in the change of the academic self-concept between the experimental and control groups due to the contingency reinforcement program.

(2) The relationship of enhancement of general and

academic self-concept and concomitant improvement of reading achievement was not significant when a comparison was made between the experimental and control groups. However, when the data was regrouped to get at global relations in which the total group was subdivided into high and low self-concept, the enhancement of the general self-concept did result in a significant concomitant improvement of reading achievement.

(3) There was a significant relationship at the .01 level between general self-concept and reading achievement when the total sample was considered as one group. The relationship between general and academic self-concept of the total group was highly significant beyond the .01 level.

(4) There was a significant difference between the experimental and control groups on the general and academic self-concept and reading achievement pre-tests.

#### LIMITATIONS OF THIS STUDY

Generalizations from the results of this study are limited by the experimental design. Specifically, the sample, tasks and instruments used require that caution be exercised in generalizing from the findings.

The sample is unrepresentative of the total population. It is reasonable to suspect that the selective sample, identified as having a negative self-concept and reading difficulty, introduced cultural and social bias

which, however subtle, may have influenced the effect of the experimental treatment. The variables of socioeconomic status and intelligence have not been controlled for in this study. Therefore, generalizations made from these findings to populations of different composition would be tenuous.

The fact that the sample was comprised of first grade students imposes a further restriction on the interpretation of findings. Since no other levels were represented in the sample, any generalizations that are made or any conclusions that are drawn, must be confined to students with similar characteristics in the first grade.

The experimental task itself places additional constraints on the interpretation of the findings. The wide range of quality and quantity of positive reinforcement among the teachers beyond the criterial minimum of reinforcements may have further influenced the effect of the experimental treatment.

Finally, since no experimental validity data is available for the experimental self-concept scale, any statements regarding general self-concept and academic self-concept change as a result of the contingency reinforcement program must be tentative.

#### CONCLUSIONS AND DISCUSSION

Results indicate that students' self-concepts may be

influenced by a contingency of positive reinforcement. It should be remembered, at this point, that the students in the study were selected for both negative self-concept and reading difficulty. These are the required conditions for the vicious cycle of academic failure compounded by the teachers' perceptions of children's low self-concept and reading difficulty. This makes the finding of significant differences even more compelling.

The Hawthorne effect may have limited the degree of significance between the experimental and control groups. In initially asking the teachers to identify the students they perceived as having a low self-concept, the teachers' attention was focussed on all the low self-concept children. This may have effected a change of attitude toward these children. Consequently, a possible change of attitude towards the students could generally reflect feelings conducive to the development of more positive self-perceptions. There was some evidence of this attention when some of the teachers expressed surprise that certain children that they deemed low were not chosen for the study. It was not considered ethical to inform the teachers that the experimental subjects had low self-concepts and that the remainder of the students had high self-concepts. When the examiner was questioned as to why certain students were chosen, they were told that a random selection of the low self-concept students

had been made. Four of the eight teachers stated that there were other students in their room, some of whom were the control subjects, but unknown to them, with whom they were carrying out the experimental program "because they needed it." Three of the eight teachers named others in their class who would benefit and commented that it was too bad that these children had not been included in the program. Some of these were also part of the control group. Only one teacher made no comment regarding other children in her class. Thus, it appears that the positive reinforcement program had some effect on the manner in which the teachers perceived and interacted with other than the experimental group in their classes. This may have generalized the enhancement of self-concept to the control group and minimized the significant difference between the control and experimental groups.

The finding of no significant difference in the change of academic self-concept could be due to a lack of development of academic self-concept in the first grade student. The first grade students may not be sufficiently advanced in their academic activities to have a stable idea of their relative competence. Their response to the school-related items of the self-concept scale could be based on a situational basis that may change. They may not have had sufficient exposure to competitive standards of achievement so that general academic performance may not yet be stably

reflected in their self-concept. Although not statistically significant, there appears to be a general trend of improvement in academic self-concept in that a greater percent of the experimental subjects showed a numerical improvement in self-concept than did the control subjects.

The difference between the control and experimental group, as evidenced by the self-concept and reading achievement pre-tests, may have been a contaminating variable in measuring change of self-concept and reading achievement between the two groups.

Some parallels between the present results and previous research are evident. The results that self-concept can be enhanced are in accord with Staines (1965) and Wolff (1973) in classroom settings at the intermediate level, Brookover et al. (1969) at the secondary level, and Bond (1974) at the kindergarten to fourth grade level. Like this study, both Wolff and Bond used social reinforcement within a form of a behavior modification approach. Wolff found no significant difference in improvement of academic achievement. The added variable of successful experience which leads to knowledge of results could account for this difference of findings in this study. Higher expectations based on past performance paired with positive social reinforcement by the teacher could lead to increased confidence,

higher aspirations, and increased motivation. This reinforcement and successful experience of reading-related tasks possibly resulted in an improvement of reading achievement.

As noted in Chapter II, differentiation of self-concept into academic and general self-concept was found by Brookover (1969) with secondary students and Coopersmith (1967) with upper elementary grade students. Wattenberg and Clifford (1964) found that, at the kindergarten and first grade level, the self-concept had at least two aspects (competence and feelings of good-bad) which varied somewhat independently of each other. This study found that the correlation between academic and general self-concept of .72 was highly significant. In light of previous findings, this study finding can be interpreted in one of two ways. First, differentiation of self-concept had not occurred and the two measures were both indicative of the same thing, a general self-concept. Second, the two measures were indicative of two measures of competence - academic competence and general competence. This second interpretation is based on the content interpretation of the self-concept scale items; each item appears to indicate competence or lack of competence towards oneself in general and academic areas.

The finding of no significant relationship between enhancement of self-concept and concomitant improvement in

reading achievement is contrary to findings by Brookover et al. (1969) at the secondary level. However, the results are in accord with similar findings by Wattenberg and Clifford (1964), and Williams (1973). In discussing this finding Wattenberg and Clifford stated:

In a rank ordering, high ranks have no place to go but down and low ratings, by chance alone, would move upward (Wattenberg and Clifford (1964, p.465).

This is the "regression to the mean" effect which must be considered in interpreting findings of this nature. This study also utilized rank-order correlations for the statistical analysis of relationship between self-concept and reading achievement. This lack of relationship may be a function of the limitations of the measuring instrument and experimental design.

#### IMPLICATIONS FOR EDUCATIONAL PRACTICE

The global implication of the findings of the present study is that the teacher holds a central place as an agent influencing the developing self-concept of the student. Through positive reinforcement, the teacher can furnish her acceptance and approval of the child as basic motivating incentives. Through incorporating mastery learning techniques as described by Block (1971) and Ely and Minars (1973), an opportunity for successful performance is

provided for the child who has experienced academic failure. Pairing of positive reinforcement and successful experience lead to the feeling that the successes come from the child's own skill and competence. This in turn raises the child's expectations for his own performance. Perhaps the most crucial of these effects is that of an intervention provided in the vicious cycle of diminishing returns for a low-esteem child, the breaking down of resistance which prevents him from benefitting from additional instruction.

Another implication involves a change of focus in remedial programs from tutoring and reteaching or even warm passive acceptance of the child during tutoring programs to taking definite steps to change the inadequate self-concept in conjunction with reteaching.

Early reading failure is a current educational problem. The report of the Manitoba Reading Survey concluded:

The large number of pupils who appear to be making little reading gains in their first year of instruction and the seeming cumulative deficit occurring by the end of grade three dictate a need for research which will disclose specific criteria for early detection of potential learning problems (Halamandaris, 1971, p.180).

A further implication of this study is that a negative self-concept may be an indication of a potential learning problem. A consideration of the self-concept may be useful criteria for early detection of potential learning problems. Lamy (1965)

and Wattenberg and Clifford (1964) found measures of self-concept to be predictive of reading achievement. This study is supported by numerous other findings as reviewed in Chapter II that self-concept can be changed. Identification of inadequate self-concepts for the purpose of explicit efforts to enhance low self-concepts concomitant with academic achievement as an integral part of the beginning school program appears to be a necessity. Teacher awareness of negative self-concepts and their concomitant devastating effect on students may change approach toward and perceptions of such students which in itself may result in a change in students' expectations.

If one accepts the interpretation of the findings made by the experimenter, the ultimate implication of this study is that the teacher, within the school environment, has a direct influence on the child's self-concept, his success and his failure. Further, the enhancement of negative self-concepts and concomitant improvement in academic achievement are feasible within an operant conditioning approach. Operant conditioning can provide the structure whereby the teacher's behavior can be systematically organized to positively reinforce the child who is having difficulty. Mastery learning techniques can provide the structure whereby the child who is having difficulty, experiences cumulative successful performance

which in itself is a potent agent for self-concept change.

The impact of the self-concept as a basic concept in education will not add to the teacher's work load in the long run; it will make the task of teaching more meaningful and significant and therefore more rewarding. The self-concept offers teachers a unifying principle which integrates the basic features of their task of affective and cognitive teaching and learning.

#### IMPLICATIONS FOR FURTHER RESEARCH

It is suggested that this study be replicated for two primary reasons: (1) to check the stability of the results of this study at the same and different grade levels; (2) to investigate the possibility of interactive effects between positive reinforcement and success experience as agents of self-concept change and increased achievement.

The relationship between self-concept and academic achievement has been found to be significant at the intermediate and secondary grade levels. Conversely, this relationship has not been significant in this and other studies at the early primary level. This area merits further investigation.

More research on self-concept has been done at the higher grade levels. Therefore more data regarding reliability and validity of self-concept measures is available for the

older child. Hopefully, future investigation of the self-concept of young children will provide more data regarding reliability and validity of self-concept measures for the younger child.

This study was limited to ten weeks. It was suggested previously that attitudinal changes to occur sometimes take longer than one year. A longitudinal study would offer additional data for decision making for both self-concept and achievement.

It has been suggested that development of positive self-concepts can be an integral part of the curriculum. The feasibility of this possibility could well become the focus for research. A related area of investigation could be the validity of teachers' identification of children with low self-concepts.

As a stronger data base is built by additional studies in self-concept, the affective aspects of teaching and learning should come more clearly into focus.

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APPENDIX A

Raw Score Data

## APPENDIX A

## RAW DATA

## Explanation of Columnar Headings.

<u>Column</u>	<u>Data</u>
1	Student identification number.
2	Pre-test self-concept sub-group and experimental group. Experimental group: C = control, T = treatment. Self-concept group: L = low, M = medium low.
3	T-score for word discrimination of learning rates pre-test.
4	T-score for words in context of learning rate pre-test.
5	T-score for words in isolation of learning rate pre-test.
6	Total T-score of learning rate pre-test.
7	T-score for post-test word discrimination of learning rate.
8	T-score for post-test words in context of learning rate.
9	T-score for post-test words in isolation of learning rate.
10	Total T-score for post-test learning rate.
11	Difference T-score of pre-and-post learning rate.
12	Pre-test general self-concept scores.
13	Post-test general self-concept scores.
14	Difference score of pre-and-post general self-concept scores.

<u>Column</u> (cont'd)	<u>Data</u>
15	Pre-test academic self-concept scores.
16	Post-test academic self-concept scores.
17	Difference scores of pre-and-post academic self-concept scores.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	TL	50.6	44.3	49	143.9	56.7	47.5	47.1	151.3	+7.4	63	66	+3	27	32	+5	
2	TL	34.6	67.7	62.3	164.6	56.7	65	70	191.7	+26.7	67	79	+12	34	40	+6	
3	TM	44.6	47.7	39	131.3	40	47.5	44.2	131.7	+0.4	71	68	-3	34	32	-2	
4	TM	50.6	41	42.3	133.9	40	40	44.3	124.3	-9.6	75	74	-1	38	38	0	
5	TM	38.6	41	39	118.6	36.7	50	41.4	128.1	+9.5	76	80	+4	36	40	+4	
6	TM	56.6	41	49	146.6	50	57.5	52.9	160.4	+13.8	76	87	+11	40	43	+3	
7	TL	48.6	41	42.3	131.9	36.7	45	44.3	126	-5.9	53	77	+24	28	39	+11	
8	TL	52.6	47.7	52.3	152.6	40	52.5	55.7	148.2	-4.4	61	71	+10	23	36	+13	
9	TL	50.6	41	35.7	127.3	33.3	40	38.6	111.9	-15.4	62	76	+14	33	37	+4	
10	TM	32.6	41	35.7	109.3	30	42.5	41.4	113.9	+4.6	71	79	+8	36	39	+3	
11	TM	60.6	51	45.7	157.3	63.3	55	50	168.3	+11	74	84	+10	34	39	+5	
12	TL	62.6	57.7	62.3	182.6	63.3	67.5	70	200.8	+18.2	44	67	+23	17	35	+18	
13	TL	34.6	41	39	114.6	36.7	47.5	41.4	125.6	+11	58	75	+17	29	38	+9	
14	TM	38.6	44.3	42.3	125.2	46.7	50	47.1	143.8	+18.6	69	77	+8	37	36	-1	
15	TL	44.6	54.3	52.3	151.2	50	50	50	150	-1.2	61	67	+6	31	35	+4	
16	TM	42.6	41	39	122.6	46.7	45	44.3	136	+13.4	61	75	+14	35	38	+3	

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
17	TM	64.6	67.7	62.3	194.6	63.3	62.5	70	195.8	+1.2	66	65	-1	35	30	-5	
18	TL	44.6	44.3	42.3	131.2	60	45	50	155	+23.8	68	78	+10	32	37	+4	
19	CL	34.6	44.3	39	117.9	50	37.5	41.4	128.9	+11	66	84	+18	32	43	+11	
20	CM	42.6	41	42.3	125.9	53.3	40	32.9	126.2	+0.3	70	67	-3	35	34	-1	
21	CM	62.6	61	65.7	189.3	60	60	55.7	175.7	-13.6	72	73	+1	37	37	0	
22	CM	44.6	67.7	65.7	178	60	60	58.6	178.6	+0.6	77	84	+7	40	45	+5	
23	CM	46.6	47.7	52.3	146.6	60	55	41.4	156.4	+9.8	79	83	+4	43	42	-1	
24	CL	50.6	44.3	52.3	147.2	46.7	47.5	32.9	127.1	-20.1	66	71	+5	33	39	+6	
25	CM	54.6	61	69	184.6	56.7	45	50	151.7	-32.9	70	73	+3	36	40	+4	
26	CM	60.6	57.7	52.3	170.6	56.7	52.5	61.4	170.6	0	76	85	+7	40	41	+1	
27	CM	64.6	54.3	59	177.9	60	65	64.3	189.3	+11.4	78	87	+9	39	44	+5	
28	CM	58.6	47.7	45.7	152	53.3	37.5	38.6	129.4	-22.6	76	82	+6	41	45	+4	
29	CL	64.6	41	42.3	147.9	60	52.5	50	162.5	+14.6	77	86	+9	39	43	+4	
30	CL	46.6	44.3	52.3	143.2	50	47.5	47.1	144.6	+1.4	64	61	-3	31	31	0	
31	CM	52.6	54.3	54.3	161.2	36.7	55	55.7	147.4	-13.8	74	64	-10	37	37	0	
32	CM	64.6	74.3	74.3	213.2	63.3	67.5	64.3	195.1	-18.1	79	70	-9	38	32	-6	

## APPENDIX B

1. Instructions for Administering Experimental  
Self-concept Scale
2. Experimental Self-concept Scale
3. Record Sheet: Self-concept Scale

INSTRUCTIONS FOR ADMINISTERING  
EXPERIMENTAL SELF-CONCEPT SCALE

INSTRUCTIONS:

Note: Words printed in small letters are for the teacher to read to the class. Words in parentheses and printed all in capital letters are instructions for actions to be carried out by the teacher.

Today we are going to play a little game. I want to find out what you think. What do you think about winter? Summer? (SHORT DISCUSSION TO ESTABLISH RAPPORT. INCLUDE EACH CHILD IN THE GROUP, RECEIVING SOME RESPONSE FROM EACH.)

Now I am going to ask you some questions. These questions are all about you. This is not a test. There are no right or wrong answers. I want to find out what you think about yourself most of the time. I want you to think about yourself while we play this game. Nobody will see what you put down except you and I. It will be our secret.

(HAND OUT RECORD SHEETS.) Let's look at the paper. Put your name at the top on the line. What do you see on the paper? Yes, faces, with a letter or numbers beside each row. What kind of faces are they? Right, smiling faces. One smiling face in each row is going to be you, or most like you. We will look at one row of faces at a time. (PUT A 3" x 5" CARD ON EACH CHILD'S PAPER THAT WOULD EXPOSE ONLY ROW A.) Now I am going to say 3 things that I want you to think about. Each face will say something.

(EXAMPLE A) Put your finger on the first face. (WAIT UNTIL EACH CHILD DOES; ASSIST ANY CHILD WHO HAS DIFFICULTY.) The first face says, "I like to shop with my mother." Put your finger on the second face. It says, "Sometimes I like to shop with my mother." Put your finger on the third face. It says, "I don't like to shop with my mother." Which face is most like you? Put an X on the face that is most like you. (HAVE EACH CHILD ORALLY STATE HIS PREFERENCE.)

If you like to shop with your mother, put an X on

the first face. If you sometimes like to shop with your mother, but not most of the time, put an X on the second face. If you don't like to shop with your mother, put an X on the third face. (CHECK THAT THE APPROPRIATE FACE IS MARKED WITH AN X, AS PREFERENCE WAS STATED. REPEAT THE ABOVE DIRECTIONS WITH EXAMPLE B, WITH THE EXCEPTION THAT THEY WOULD CHECK THE APPROPRIATE FACE BEFORE ORALLY STATING WHICH WAS THEIR CHOICE.)

(EXAMPLE B) The first face says, "I am shy with other boys and girls." The second face says, "Sometimes I am shy with other boys and girls." The third face says, "I am not shy with other boys and girls." Which face is most like you? Put an X on it.

(EXCHANGE THE 3" x 5" CARDS FOR ANOTHER ONE WITH A CUTOUT WINDOW IN THE MIDDLE THAT WOULD EXPOSE ONE ROW OF FACES.)

Now you will not tell me out loud which face is like you. You will just mark it with an X. Listen carefully and mark the face most like you in the window. (AFTER A ROW IS COMPLETED, ASK THE CHILDREN TO MOVE THE WINDOW DOWN TO ROW 2, 3, ETC.)

#### ADMINISTRATION:

The scale will be given to approximately 4 children at a time so examiner could observe that the children are on the right row and face number throughout the scale. Each child is provided with two 3" x 5" cards, one of which would have a cut-out window that would expose one row of faces at a time. This would help in focusing on the row and cover up the previously marked face. This would reduce the possibility that the child would mark the same position as the previous time. An item may be repeated if there is any pondering or hesitancy.

#### SCORING:

Score of 1, 2 or 3 for each item; score 3 for a positive response, 2 for sometimes, 1 for a negative response. Possible range of scores - 30 to 90. Analysis of clusters would add further data.

## EXPERIMENTAL SELF-CONCEPT SCALE

Content Analysis of Clusters:

1. General self-concept (3 clusters)
  - (a) general self-view items - 1, 2, 5, 6, 9, 10, 13, 18, 19, 26 (10 items);
  - (b) academic achievement self-view items - 3, 15, 20, 21, 22, 23, 25, 27, 28, 29 (10 items);
  - (c) significant others: teachers - 8, 16, 17, 30; peers - 4, 11, 12; parents - 7, 14, 24 (10 items).  
Total of 30 items.
  
2. Academic self-concept (academic achievement items, significant others items - 7, 17, 24, 30; general self-view item - 18), items 3, 7, 15, 18, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30.  
Total of 15 items.

## EXPERIMENTAL SELF-CONCEPT SCALE

Adaptation of Gordon's (1966) "How I See Myself Scale" for Grade One.

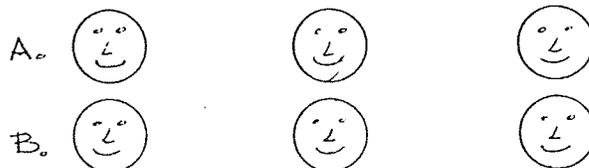
- Row 1. 1st face says, "Nothing gets me too mad."  
2nd face says, "Sometimes things get me pretty mad."  
3rd face says, "I get mad easily and explode."  
Which is most like you?
- Row 2. 1st face. I don't stay with things and finish them.  
2nd face. Sometimes I stay with things and finish them.  
3rd face. I stay with something till I finish.
- Row 3. 1st. I'm very good at drawing.  
2nd. Sometimes I'm good at drawing.  
3rd. I'm not much good at drawing.
- Row 4. 1st. I don't like to work on projects with others.  
2nd. Sometimes I like to work on projects with others.  
3rd. I like to work on projects with others.
- Row 5. 1st. I wish I were smaller or taller.  
2nd. Sometimes I wish I were smaller or taller.  
3rd. I'm just the right height (size).
- Row 6. 1st. I worry a lot.  
2nd. Sometimes I worry a lot.  
3rd. I don't worry much.
- Row 7. 1st. My parents are not pleased with my school work.  
2nd. Sometimes my parents are not pleased with my school work.  
3rd. My parents are pleased with my school work.
- Row 8. 1st. Teachers like me.  
2nd. Sometimes teachers like me.  
3rd. Teachers don't like me.
- Row 9. 1st. I can run fast when we play.  
2nd. Sometimes I can run fast when we play.  
3rd. I can't run very fast when we play.

- Row 10. 1st. I don't play games very well.  
2nd. Sometimes I play games well.  
3rd. I play games very well.
- Row 11. 1st. I have many friends.  
2nd. I have some friends.  
3rd. I don't have many friends.
- Row 12. 1st. Other children don't like to play with me.  
2nd. Sometimes other children don't like to play  
with me.  
3rd. Other children like to play with me.
- Row 13. 1st. I'm very good at speaking before a group.  
2nd. Sometimes I'm good at speaking before a group.  
3rd. I'm not much good at speaking before a group.
- Row 14. 1st. My mother thinks I am pretty good.  
2nd. Sometimes my mother thinks I am pretty good.  
3rd. My mother thinks I'm not very good.
- Row 15. 1st. I'm very good in music.  
2nd. Sometimes I'm good in music.  
3rd. I'm not much good in music.
- Row 16. 1st. I get along well with teachers.  
2nd. Sometimes I get along well with teachers.  
3rd. I don't get along well with teachers (get  
into trouble with teachers).
- Row 17. 1st. My teacher thinks I work hard.  
2nd. Sometimes my teacher thinks I work hard.  
3rd. My teacher thinks I should work harder.
- Row 18. 1st. I am proud of my work when I finish it.  
2nd. Sometimes I am proud of my work when I finish  
it.  
3rd. I am not very proud of my work when I finish  
it.
- Row 19. 1st. I'm afraid to try new things.  
2nd. Sometimes I'm afraid to try new things.  
3rd. I like to try new things.
- Row 20. 1st. I just leave it when I can't do my work.  
2nd. Sometimes I just leave it when I can't do my  
work.  
3rd. I just keep on trying when I can't do my work.

- Row 21. 1st. I do well in school work.  
2nd. Sometimes I do well in school work.  
3rd. I don't do well in school work.
- Row 22. 1st. I think there are lots of fun things to do at school.  
2nd. Sometimes I think there are lots of fun things to do at school.  
3rd. I think school is not much fun.
- Row 23. 1st. I'm not as smart as the others.  
2nd. Sometimes I'm not as smart as the others.  
3rd. I'm smarter than most of the others.
- Row 24. 1st. My parents like it when I bring work home.  
2nd. Sometimes my parents like it when I bring work home.  
3rd. My parents don't care if I bring work home.
- Row 25. 1st. I print well.  
2nd. Sometimes I print well.  
3rd. I don't print very well.
- Row 26. 1st. I'm not much good at making things with my hands.  
2nd. Sometimes I'm good at making things with my hands.  
3rd. I'm very good at making things with my hands.
- Row 27. 1st. I don't do arithmetic well.  
2nd. Sometimes I do arithmetic well.  
3rd. I'm real good in arithmetic.
- Row 28. 1st. I like school.  
2nd. Sometimes I like school.  
3rd. I don't like school.
- Row 29. 1st. I don't read well.  
2nd. Sometimes I read well.  
3rd. I read very well.
- Row 30. 1st. The teacher thinks it is hard for me to learn new things easily.  
2nd. Sometimes the teacher thinks it is hard for me to learn new things easily.  
3rd. The teacher thinks I learn new things easily.

RECORD SHEET: SELF-CONCEPT SCALE

Name: \_\_\_\_\_



ROW 1.				ROW 16			
2.				17.			
3.				18.			
4.				19.			
5.				20.			
6.				21.			
7.				22.			
8.				23.			
9.				24.			
10.				25.			
11.				26.			
12.				27.			
13.				28.			
14.				29.			
15.				30.			

## APPENDIX C

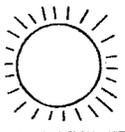
## Reading Measurement Instrument

1. Reading Difficulty Screening Test
2. Learning Rate Pre-test
  - a. Word Discrimination
  - b. Words in Context
  - c. Words in Isolation
3. Learning Rate Post-test
  - a. Word Discrimination
  - b. Words in Context
  - c. Words in Isolation

## Reading Difficulty Screening Test

PART 6 LEARNING POWER

18

- a.  train torn house
- b.  fort boat bold
1.  barn car can
2.  cane seen dress
3.  wait shirt store
4.  coat boast corn
5.  batter blown balloon
6.  swing bring ring

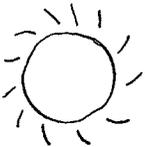
Reference: Braun, Carl, John Downing, Peter Evanechko and Lloyd Ollila. Canadian Readiness Test, unpublished readiness test, Copyright, 1970.

7.  football follow float
8.  tree car kite
9.  skirt from shirt
10.  see car rat
11.  balloon broom farm
12.  friend round swing
13.  barn football swing
14.  thing coat wore

15.  dress      man      drill
16.  try      close      boat
17.  kite      king      bite
18.  train      swim      round
19.  cart      ear      car
20.  fort      foot      boat
21.  string      thing      swing
22.  train      tree      tease

## Learning Rate Pre-test: Word Discrimination

a  lion bear house

b  candy cup farmer

1  bear dress fish

2  fish sheep lion

3  game paint wagon

4  woman airplane street

5



flower people pony

6



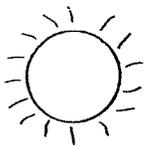
meat cap many

7



hand corn candy

8



food house fish

9



bee boat hand

10



train hair bag

11



pony paint power

12



show send sheep

13



but bear before

14



and game airplane

15



want wagon woman

16



talk tap train

17



candy cup call

18



more many meat

19



food farm fire

20



bee boat ball

Can you try to read these?

You can ride on the pony.

The sheep eats grass.

The bear likes honey.

The airplane can go fast.

You can ride in a wagon.

I like to ride on the train.

The boat is in the water.

I like to eat meat for dinner.

Food makes me grow.

## Words in Isolation

Can you read these words?

---

candy

train

airplane

bear

pony

wagon

boat

sheep

food

meat

## Learning Rate Post-test: Word Discrimination

a. lion            bear            house

---

b. candy          cup            farmer

---

1. gate            cake            paid

---

2. sound          brown          clown

---

3. goat            bowl            plant

---

4. friend          garden          pocket

---

5. breakfast      grandmother    picture

---

6. window          valentine      vegetabes

---

7. cross            circus          animal

---

8. sign            ring            step

---

9. three            hand            teeth

---

10. then            leaves        letter

---

11. grandfather    guess        surprise

---

12. came            party        city

---

13. right            road        never

---

14. money            honey        must

---

15. rooster        farmer        fireman

---

16. vegetables    very        valentine

---

17. game            grandfather    garden

---

18. monkey        money        morning

---

19. sign            sing        sand

---

20. children        circle        circus

---

## Words in Context

Can you try to read these?

1. The clown is funny.
2. I like to go to the circus.
3. The farmer can plant a garden.
4. Vegetables are good for me.
5. Do you have money to go to the circus?
6. There is a sign on the gate.
7. Clean your teeth after breakfast.
8. Do not play on the road.
9. I live in the city.
10. The leaves are green.
11. I like grandfather to visit me.

Can you read these words?

clown

money

gate

sign

plant

garden

leaves

teeth

city

road

circus

breakfast

farmer

grandfather

vegetables

## APPENDIX D

## Treatment Program Record Forms

1. Reading Activities Checklist
  - a. Teacher's Record Sheet
  - b. Examiner's Record Sheet
2. Measurement of Positive Reinforcement
  - a. Teacher's Weekly Record
  - b. Examiner's Observation Record Sheet
3. Reading Relevancy Examiner's Record Sheet

## READING ACTIVITIES CHECKLIST

Teacher's Record Sheet

Purpose: To provide the teacher with a measure of the child's correctness of work, success at work (Language Arts related tasks).

(1) detailed information regarding the effectiveness of the teaching-learning process;

(2) record of instructional correctives as needed to ensure mastery of each learning unit by recording re-teaching and practice until mastery is achieved or breaking the learning task into smaller units until mastery of the learning task is achieved;

(3) the basis of positive reinforcement on correctness, success of work.

READING ACTIVITIES CHECKLIST

(Record of Success in Work)

Phase: \_\_\_\_\_

Week: \_\_\_\_\_

Teacher: \_\_\_\_\_

DATE	NAMES OF GROUP READING ACTIVITY									GROUP OR INDIVIDUAL COMMENTS
	SKILL: Objective -  Teaching strategy -  Follow-up needed Reteaching (date) - 2nd reteaching 3rd reteaching Mastery (check)									
	ORAL READING/ORAL WORK (Identify)  Check if follow-up needed: Word recognition Word analysis Comprehension									
	INDIVIDUAL INDEPENDENT WORK (Identify)  Number completed Number of assignments Correctness of work (no. correct/total) Follow-up needed Reteaching (date) Mastery (check)									

RECORD

Activities for fostering positive attitude towards reading: (eg. A-1, C-3)

\_\_\_\_\_

\_\_\_\_\_

EXAMINER'S RECORD SHEET

Success in Work

(Summary of Teacher's Teaching Activities Checklist)

Teacher: \_\_\_\_\_ School: \_\_\_\_\_

Date: \_\_\_\_\_

Phase: \_\_\_\_\_ Week: \_\_\_\_\_

<u>Name</u>	<u>Assignment or Independent Work</u>		<u>Challenge Level (ratio)</u>	<u>Mastery Achieved (check)</u>
	<u>Number Completed</u>	<u>Number Correct</u>		
	<u>Total</u>	<u>Total</u>		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Stated: (check)

Objective: \_\_\_\_\_

Teaching strategy: \_\_\_\_\_



EXAMINER'S OBSERVATION SHEET

Positive Reinforcement

Teacher: \_\_\_\_\_ Date: \_\_\_\_\_ Total Observation Time: \_\_\_\_\_

Students: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Name	Pupil Number*	Reading Activity:	Reinforcement Record (Observation Time: _____)	Total Positive Reinforcement	Total Interaction
_____	1	_____	_____	_____	_____
_____	2	_____	_____	_____	_____
_____	3	_____	_____	_____	_____
_____	4	_____	_____	_____	_____
_____	5	_____	_____	_____	_____
_____	6	_____	_____	_____	_____

REINFORCEMENT CODE:

- ✓ - general positive reinforcement
- E - expectancy
- e - encouragement, explanation
- N - non-verbal (nod, pat on shoulder)
- C - caution or correction
- I - directed instruction, directed question
- \_\_\_\_\_ - general neutral interaction
- T - task oriented, paired with task (could be E-T, e-T, C-T)
- ⊂ - including the whole group (can be ⊂e, ⊂E, ⊂✓)
- ↗ - peer recognition, directed to group re individual (could be ↗e, ↗E, ↗✓, ↗C)

\*Pupil number represents the ordinal position of the pupils in the group. The names of the pupils can be written in after, during or before the observation.

READING RELEVANCY  
EXAMINER'S RECORD SHEET

Developing Reading Relevancy (List of activities)

Teacher: \_\_\_\_\_ School: \_\_\_\_\_

Students: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Phase: \_\_\_\_\_

Week 1

\_\_\_\_\_  
 \_\_\_\_\_

Week 2

\_\_\_\_\_  
 \_\_\_\_\_

Week 3

\_\_\_\_\_  
 \_\_\_\_\_

Summary of activities: experience with books:

	<u>Total</u>
A. Developing experience . . . .	_____
B. Extending experience . . . .	_____
C. Reading own words and stories	_____

## APPENDIX E

## Treatment Program

1. Purpose
2. Phase I
3. Phase II
4. Phase III
5. Phase IV

PURPOSE:

To provide positive social reinforcement to improve self-confidence or self-esteem. This positive social reinforcement, linked to the child's achievement in school, should be given in the form of:

- (a) verbal praise;
- (b) positive attention;
- (c) non-verbal (smile, pat on back, etc.);
- (d) positive expectancy expressed; for example, "I know you can do that", "I think you can figure this out now."
- (e) in written work, a written positive comment that is read to the child.

These reinforcements are to be given as a result of success in:

- (a) written work assignments;
- (b) oral work;
- (c) any reading related activities.

Generally, your reading program should remain the same. You are adding positive social reinforcement and successful experience related to the child's achievement in school.

Duration of study:

One hour every day during Language Arts for a ten week period. This ten week period will be divided into four phases. Specific details for each will be given out at the beginning of each phase.

## PHASE I

DURATION: 2 weeks

QUANTITY

1. Give positive social reinforcement for success in oral and independent work. Continuous  
8-10  
daily  
Try to record the number of positive reinforcements given to each child in the group once a week.
2. Provide continuous success in all independent and group work. Continuous  
Begin with content found successful in the past. Write a positive comment on all written and independent work. Read this to each child when it is being returned to him or her. You may have to manufacture successful experience for some at first. For example, a child who doesn't know a word could be asked to repeat the word after someone else in the group said it and then be praised for paying attention. Next time, either he can be asked to recognize an easier word; or help can be given by the teacher or the rest of the group to achieve success. Recognition can be given for trying and "getting it" with some help.
3. Fill out the "Reading Activities Checklist" daily. Daily  
This would be your record of the individual progress, the basis of which can be used for further successful experience and building confidence through positive comments related to their work.
4. Try to foster a positive attitude towards reading. 1-3  
Choose one to three activities daily from the three pools of suggestions provided. If more than one activity is chosen, choose these from different pools. Record daily the activity or activities which are chosen. Space for recording these is provided on the "Reading Activities Checklist".  
daily

## PHASE II

DURATION: 2 weeks

DAILY  
QUANTITY  
(minimum)

- |  |       |
|--|-------|
| 1. <u>Continue to give positive social reinforcement for success in oral and independent work in the form of:</u>  |       |
| (a) <u>encouragement:</u> encouragement implies your faith in the child. Unless you have faith in him as he is, you cannot encourage him. Encouragement is related to task performance, task effort and helps to build self-confidence. For example, "You're almost finished, good." See attached list for further examples. | 2-3   |
| (b) <u>explanation:</u> an explanation is given at the end of the period or lesson regarding successful oral and independent work. For example, "You knew all (more of) your words today." "Your worksheet was all correct yesterday. I'm really pleased."   | 1     |
| (c) <u>peer recognition:</u> make a specific positive comment about the child and call the group's attention to it. For example, "John read the sentence correctly. Isn't that good?"  | 1     |
| (d) <u>general positive reinforcement</u> linked to the child's achievement, as in Phase I.  | 4-6   |
|  | <hr/> |
| Total:   | 8-10  |
|  | <hr/> |

Sample pools of positive reinforcement in the form of encouragement, explanation and peer recognition are attached.

2. Try to record the number of positive reinforcements given to each child in the group once a week. A record

sheet is provided.

3. Use shaping and modeling techniques to change inappropriate behavior.

(a) shaping: To decrease the inappropriate behavior, ignore the behavior completely. This is taking away the attention the child received for the behavior, even if this had been negative. Negative attention is better than no attention for such a child. Praise for a substitute good behavior. This is a double barrel approach, ignoring bad behavior and providing alternative good behavior that will receive positive attention. For example, comments for shaping the stages of an undesirable behavior, wandering around the room:  
 "Paul is going to his desk to begin work. Good."  
 THEN: "You're at your desk and ready to begin work. Good."  
 THEN: "I'm glad to see you working."

(b) modeling: Pick a child who is exhibiting the desired behavior and comment to the rest of the group. For example, "Jerry is seated (has the right page). Good." This can be followed by a comment regarding others as they model the desired behavior. For example, "Jerry is ready to begin. So is Paul. Good."

4. Continue to provide success in all independent and group work. Add a challenge level to approximately one-quarter of the items of an assigned task, oral and independent. For example, out of 10-12 items or words, 2 to 3 should be difficult enough so that success is quite possible, but not certain. An explanation of previous success can be paired with encouragement as two positive reinforcers. At the beginning of the phase, these new items can be done orally with the group to build confidence in the child for the task. Continue to write a positive comment which is read to the child on all written and independent work.
5. Fill out the Reading Activities Checklist twice a week. This continues to be your record of individual progress, the basis of which can be used for further successful experience, extending the challenge level and positive reinforcement. You may continue to fill this out daily if you wish.
6. Continue to choose one to three activities daily from

the three pools of suggestions provided to foster a positive attitude towards reading. Record these daily on the "Reading Activities Checklist".

## PHASE III

DURATION: 3 weeks

DAILY  
QUANTITY  
(minimum)

- |  |                            |
|--|----------------------------|
| 1. <u>Continue to give positive social re-<br/>inforcement for success in oral and<br/>independent work in the form of:</u>  |                            |
| (a) <u>encouragement: for example,</u><br>when the child seems to hesitate,<br>"That's right, you got the first part,<br>keep on."   | 1-2                        |
| (b) <u>explanation: for example,</u><br>"I like the way you looked at the whole<br>word before you read it. You noticed<br>that it rhymed."  | 1                          |
| (c) <u>peer recognition: for example,</u><br>"John got all the words today. Isn't<br>that good?"   | once or every<br>other day |
| (d) <u>general positive, as in</u><br>Phases I and II; <u>for example,</u> "Good,<br>I'm pleased with you."  | 3-4                        |
| (e) <u>expectancy helps to set a</u><br>realistic <u>goal for the child. For</u><br><u>example,</u> "I think you can finish that<br>page by yourself now."   | 2                          |
| (f) <u>Contractual agreement can pro-</u><br>vide the <u>shaping steps for completion</u><br>of a task at hand and successful<br>experience. <u>For example,</u> "How many more<br>can you get done in the next five minutes?<br>I'll check back." | 1-2                        |
| Total:   | <u>8-10</u>                |

Sample pools of positive reinforcement  
in the form of expectancy and contractual  
agreement are attached.

2. Try to record the number of positive reinforcements given to each child in the group once a week. A record sheet is provided.
3. Continue to provide success in independent and group work. Increase the challenge level of assigned tasks to approximately one-third of the items. For example, out of 10-12 items or words, 6 to 8 of these should be words or items the child knows and will experience success. The other third, or 3-4 should be where success is quite possible, but not certain. Explanation of previous success can be paired with expectancy as two positive reinforcers. For example, "You got this all correct at the blackboard. Now, I think you can do it just as well at your seats." At the beginning of the phase, these new items can be done orally with the group to build confidence in the child for the task.
4. Continue to write a positive comment which is read to the child on all written and independent work. Add a personal tone to this written comment by using the child's name. For example, "John, I'm pleased with your work." "Very good work, John."
5. Errors or mistakes have been ignored thus far, except as evidence that the criteria for success at work hasn't been met and that reteaching for mastery needed to be done. In this phase, errors are explained as "trys", not as evidence of failure, that learning can follow a mistake. For example, if the child's worksheet was 7/10 correct, you can say, "You had 7 correct. Let's look at the other three you tried again. I'm pleased that you tried. I think you can do them correctly if you try again." Then help the child to arrive at the correct responses.
6. Fill out the Reading Activities Checklist twice a week. This continues to be your record of individual progress, the basis of which can be used for further successful experience, extending the challenge level and positive reinforcement.
7. Continue to choose 1-3 activities daily from the 3 pools of suggestions provided to foster a positive attitude towards reading. Record these daily on the "Reading Activities Checklist". Try to provide variety by choosing different activities from each pool of suggestions.

REMEMBER, THE PRESCRIBED DAILY PROGRAM FOR IMPROVING OR  
ENHANCING THE CHILD'S SELF-CONCEPT IS BASED ON THREE ASPECTS  
OF REINFORCEMENT:

- (1) DEGREES OF POSITIVE REINFORCEMENT;
- (2) SUCCESSFUL EXPERIENCE;
- (3) PROVIDING A POSITIVE EXPERIENCE WITH BOOKS AND READING.

## PHASE IV

BEHAVIOR MAINTENANCE

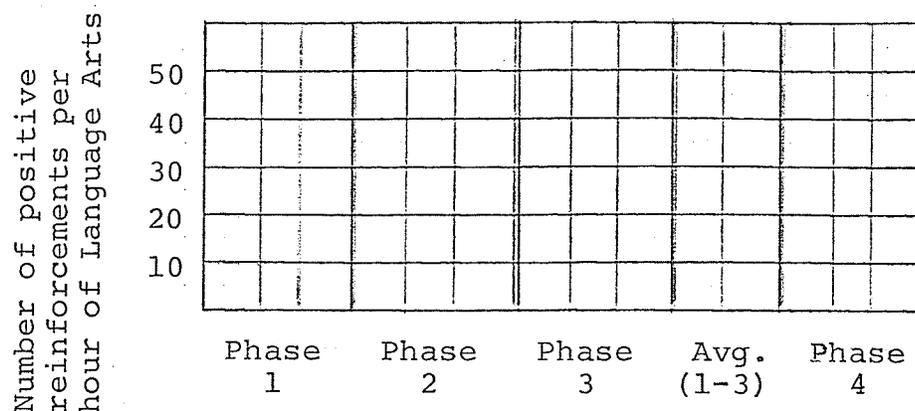
Rationale: In working a slot machine or playing bingo, you continue because you never know when it will pay off. So in partial scheduling, the child continues the previously reinforced behavior, never knowing when it will pay off through your reinforcement. Changed behavior can be "cemented in" through intermittent reinforcement.

Once a behavior has been established, it is more effective to give the reinforcer only some of the time rather than every time. If the child never knows whether the reinforcer is coming, he won't be disappointed on the one hand or bored on the other. The time to shift to partial reinforcement is before the positive reinforcer has lost its power. An advantage of intermittent reinforcement is that the child tends to sustain his appropriate responses while the frequency of "pay off" is being reduced. By using intermittent reinforcement skillfully, you can avoid the pitfalls of the child's deciding the game is over. Reinforcements might occur after a certain number of correct responses or after a particular time period (for example, after 10 minutes of appropriate behavior). When a positive reinforcer is withdrawn, the frequency or magnitude of the reinforced response usually show a decrement.

Duration: 3 weeks

1. Continue to give positive social reinforcement for success in oral and independent work on a partial schedule (first week - 75% of average number of observed reinforcements during the first three phases of the study; second week - 1/2 or 50% of the average number of observed reinforcements; third week - 1/4 or 25% of the previous week). See the following chart and graph for specific numbers of positive social reinforcements suggested for each child.

Graph of observed positive reinforcement (projected for Phase IV, according to partial reinforcement).



Suggested number of positive reinforcements for individual pupils based on previously observed reinforcements:

PUPIL	WEEK 1	WEEK 2	WEEK 3
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

2. The form of the positive reinforcements continues to be the same as for Phase III:

(a) expectancy: example, I know you can do it.

(b) encouragement: example, that's right, keep on.

(c) explanation: example, you're being more careful with your work now.

(d) peer recognition: example, did you notice that John got that all by himself?

(e) contractual agreement: example, how much can you get finished in two minutes? Let's check.

(f) general positive: example, good for you!

3. Continue to provide success in all independent and group work. Add a challenge level to approximately one-half of the items of an assigned task, oral and independent. For example, out of 10-12 items or words, 5-6 should be difficult enough so that success is quite possible, but not certain. Continue to write a positive comment which is read to the child on all written and independent work.
4. Fill out the Reading Activities Checklist twice a week. This continues to be your record of individual progress, the basis of which can be used for further successful experience, extending the challenge level and positive reinforcement. You may continue to fill this out daily if you wish.
5. Continue to choose one to three activities daily from the three pools of suggestions provided to foster a positive attitude towards reading. Record these daily on the "Reading Activities Checklist".

MANY, MANY THANKS FOR YOUR GREAT COOPERATION AND WILLINGNESS IN FOLLOWING THROUGH THE TEN WEEKS STUDY PROGRAM!

## APPENDIX F

## Treatment Program:

## Further Background Information

Phase I: Further Background Information

Phase II: Further Background Information

Phase III: Further Background Information

## PHASE I

## Further Background Information

## What you do

YOU, of all people, recognize that worlds aren't made in a day. They're put together piece by piece. It takes care, thought, love, lots of guts, and a plan.

How about a kid's self-esteem? It's just like those worlds that aren't made in a day. You work hard — day after day — putting pieces together.

You help (prompt) him when he's wrong; you support him when he's right; you tell his buddies how great he's doing.

But, hey—our cart's almost before our horse.

*"The 'stuff' of self-esteem"*

What is it you're "tinkering" with when you're building that self-esteem? What are your building blocks, TEACHER?

Your blocks, my friend, are simply the things you get Johnnie to do.

He behaves.

He acts.

He does.

Every single move Johnnie makes is the "stuff" of self-esteem.

It's behavior.

Certainly, it's behavior. Nothing more, nothing less—it's pure old, down-to-earth behavior.

Reference: Carter, Ron. Help These Kids are Driving Me Crazy, Research Press, 1972, p.4-11; 14-17.

And you have

1. the skill,
2. the training, and
3. the responsibility  
to guide that behavior.

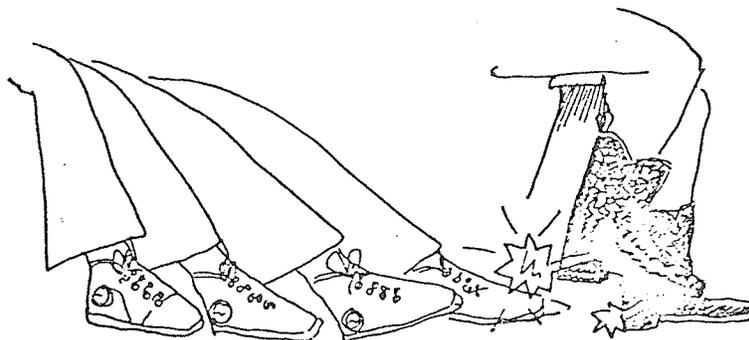
But a behavior is...

This all sounds marvelous but looking more closely at what you do is crucial, **HERE!**

You don't deal with big philosophical constructs in the middle of reading class.

*I see you asking some of these questions:*

1. Is Gretel following the place?
2. How about Hermione? Is she saying the "a" sound correctly in new words?
3. Are both of Harvey's feet where they belong?
4. Did Martin tell us the story *correctly* in his own words?



## Observables: Behaviors

You seem to be concerned with each little tiny event—each observable thing the kid does.

So, what most people loosely call a kid's behavior, then, is made up of a whole bunch of little bitty behaviors—all readily discernible (seeable) in the here and now. Right?

Really, then, a behavior is *anything* a person does.

. . . And that's what you work with.

You try to improve Hermione's reading behavior. At the same time, you're improving Harvey's behavior with feet. You're grappling with everything that each kid does.

. . . every discernible event!

For example...

When Hermione learns the "a" sound and Harvey learns where to keep his feet, the job's not over, of course. But, in both cases, you've taught a behavior that, when properly placed in its niche, leads to reading, in one case, and being a good neighbor, in the other.

Clearly, you've methodically taught a part of a bigger behavior.

But, how do you know when you've taught it? You can see the kids doing the little behaviors (the tiny building blocks) that you've taught them.

Hermione says "a" correctly.  
Harvey keeps his feet in place.



Now, you go on to the next behavior in those *awesome things* called reading or being a good neighbor?

Through all this you're making an assumption. What is it you're assuming as you move step by step in the teaching-learning process?

*It seems that you're saying:*

Hermione's behavior is learned. Harvey's behavior is learned.

And—

**You're teaching it!**

Since we seem to see eye to eye, how about letting me speak for you. . .

It may help you recognize many good things you do in your classroom, and besides talking for both of us really turns me on.

## To summarize

Behavior is taught by someone.

So, two people are involved—a *learner* and *teacher*.

The things we do (our behaviors) have been brought about by the behaviors of someone else. In essence, we can say that someone *taught* us or *trained* us to behave as we do.

Teachers teach or train their students' behaviors.

Parents teach or train their children's behaviors.

In fact, most of us also recognize that children teach and train *us*—their teachers and parents.

Actually, in all life situations, we effect the behaviors of others and they, in turn, effect our behaviors.

How about that for equality!

## Some special things to remember

Well, the first thing is to avoid hoping that regardless of what we do—be it right or wrong—that by some magic inherent in the child, he will “blossom” into a “good grown-up.”

Being a good teacher or being a good parent are not instinctive. Then, how in heaven's name can we rationalize our hoping that “being a good kid,” “being a bright boy,” or “being a nice guy” is instinctive for a child?

Somewhere, sometime, teachers have to be taught *how* to be *good teachers*.

Likewise, kids have to be taught *how* to be *good kids*.

So, the second thing we must do is to realize that to be a *good teacher*, or to be a *good kid*, the desired behavior *must* be taught.

The third thing we should realize is that the foregoing is in no way designed to imply that kids, teachers, or parents don't eventually develop the skill of figuring things out for themselves.

Indeed, they do!

However, being a *good anything* in reasonable time demands *good training*.

In order to just do a good job of teaching kids in a natural manner we have to be taught—initially. Having done it a few times in a stiff and unnatural way, it *slowly* becomes second nature.

In other words, we graduate to the level of functioning where we can figure things out for ourselves . . . but graduation suggests that we've been taught some basics along the way.

A good example of this might be the job interview. Before we can really know what is expected in an interview situation, we have to have had at least one job interview. Having lived through one, we're able to handle similar situations in the future. We are able to apply this old knowledge to the new situation.

The skill of applying old knowledge is the hitch . . . very difficult to learn . . . even for us adults.



## Changing

Fortunately, behavior can be changed. Goodness knows our kids learn things we don't like them to learn. But on the other hand, they learn lots of good things, too.

*It probably makes good sense to say that . . .*

If children learn their behaviors from other people, we can simply change what we teach them.

If we change what we teach them, there should be a change in our learner's behavior. Isn't that sensible?

On the other hand, we can clarify what we're teaching . . . and sometimes find that we do not have to change what we are teaching. Rather, we simply have to make clear exactly what we are attempting to teach.

In other words, it is important not to cloud the issue when we are teaching a behavior.

For example, most teachers recognize the absurdity and the difficulty, involved if they were to try to teach a child (1) reading comprehension, (2) penmanship, (3) word recognition, and (4) spelling accuracy all at the same time in a single lesson.

(But sometimes we teachers try it anyway.)

### *There's still hope*

Teachers can improve their practices in teaching or training youngsters.

Teachers are concerned with trying to help children grow up to be successful adults.

In fact, most adults are in the business of teaching children. They are trying to establish desirable behavior in the child.

Once the desired behavior shows up in the child, the next step is to maintain it.

That's what the goals of teaching are all about. We want to maintain good performance.

Most important of all...

Behavior can be increased or decreased in its frequency of occurrence. Frequency is our yardstick for measuring whether the behavior is stronger or weaker.

When we want to influence the behavior of a student, we say either . . .

- that we want him to do something, or
  - that we want him to not do something
- . . . each time the opportunity comes around.

In the case of *desirable behaviors*, we say "How do I get it? How do I keep it?"

In the case of *undesirable behaviors*, we say "How do I get rid of it? How do I keep rid of it?"

Looking at our own lives we discover that for us the *results* of our behavior are the things that determine whether we engage in an activity again. The same is true for kids.

**The key word is consequences!**

## Consequences are what mold behavior

Parents and teachers mold behavior simply by manipulating the consequences of behavior.

To manipulate consequences is not harmful, immoral, or unethical. In fact, we do it already. Each of us can recall hundreds of times that we've told someone "thanks" for doing something nice for us. Is that manipulating consequences?

Sure it is.

Let's analyze the events:

BEHAVIOR —————> CONSEQUENCE

10:03 a.m.

10:04 a.m.

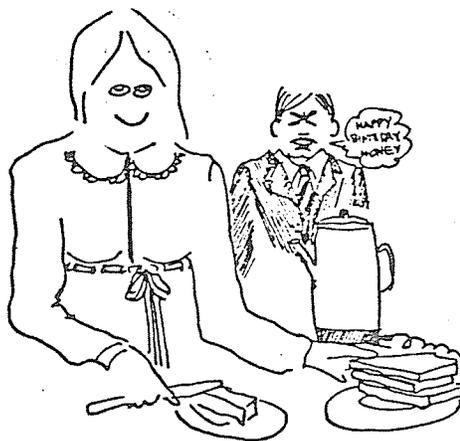
A nice deed occurs.

You say "thanks."

In this example, someone did something and your "thanks" was the *result* or the *consequence*. He'll probably do nice things for you again. He probably won't for the guy who doesn't say "thanks."

So, the fellow's behavior is manipulated by the *results* it yields him.

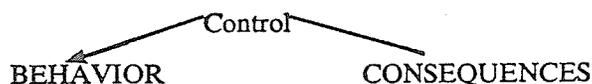
Similarly, wives cook breakfast for crabby husbands—when the consequences are right. If Hubby doesn't come through with proper consequences, however, breakfast probably stops or at least gets worse. On the other hand, if Hubby remembers anniversaries, birthdays, and Mother's Day, breakfast probably continues or maybe even gets better.



Finally, if employees go to work, they are paid.  
If they don't go, pay stops.

If we change the consequence,  
we change the behavior.

So, to a large extent, we are forced to recognize that adult (and child) behaviors are controlled by their *consequences*. It looks like this:



Now, let's go a little further by considering this:

BEHAVIOR                      CONSEQUENCE  
Come to work → (and then) → you get *paid*.

But, notice that if the consequence is changed your *behavior* will be changed.

BEHAVIOR                      CONSEQUENCE  
Come to work → (and then) → you *don't* get paid.

You *don't* come to work → (and then) →

---

you fill in the rest.

The point is that much of what we do in the "here and now" is related to what will happen soon afterwards.

## Giver and receiver of consequences

Each of us has probably already figured out that sometimes we're the giver and sometimes we're the receiver.

Simply stated:

1. Sometimes we do a behavior and wait for the consequences from the boss, the teacher, or Mommy or Daddy.
2. Sometimes others do the behavior and wait for our consequences such as "Thank you," "What a thoughtful thing to do," "Here's your pay check."

Yes, to some extent, our behaviors are controlled by other people. But don't despair. We control their behavior, too.

It's nothing more than a give and take situation. We scratch each other's backs. In fact, it's not possible to avoid this type of interaction. Not even if we try.

## Reinforcers

It is accepted by most authorities that we use the term *reinforcer* to describe pay checks, "thanks," and cards on Mother's Day.

These things happen to us as a result of nice things we've done in the past. Yes, a consequence for our behavior.

## An experiment

## 5

Increasing a  
desirable behavior

Lovina is a "holy terror." For some unknown reason she runs to Teacher's desk all the time.

Things go like this:

"Lovina, here is your arithmetic. See these three rows of problems?"

*"Uh-huh."*

"You are to do all three rows. Do you understand?"

*"Uh-huh."*

"Now, remember, you'll get ten points for each row. If you do your work well, you'll have thirty points, and you can buy whatever you want from our CLASS MENU."

Teacher turns and starts toward her desk. Within seconds, Lovina is at teacher's heels.

*"Do you want me to do all three rows or just one Miss Florence?"*

*"How much time do I have left, Miss Florence?"*

*Again, "Is this problem right, Miss Florence?"*

*Once again, "Could you show me how to do this one, Miss Florence?"*

*And later, "Why do I have to do this, Miss Florence?"*

*Again, "Miss Florence, do you know what I saw on TV last night?"*

*And, "Miss Florence, I gotta go potty."*

*Then . . .*

*"Miss Florence, what was it I was supposed to do?"*

Remarkable, isn't it! These things are common in so many classrooms.

What can Miss Florence do—short of murder?

Yes, she could blow her stack. Problem is, by early afternoon, Lovina would probably be back to her old tricks.

Let's get rid of it once and for all.

Usually, when we are working on a specific behavior, we try to keep some kind of records so we know where we've been and how much progress is being shown.



Let's use Lovina's behavior. She went to Miss Florence's desk *without* permission eight times in the dialogue above in about seventeen minutes.

Miss Florence wants to *reverse* this trend. She wants Lovina to come to her desk *only when Lovina has raised her hand.*

Notice, Miss Florence doesn't mind Lovina's *coming to the desk*—but permission or raising her hand is the issue.

Before Miss Florence starts trying to change Lovina's behavior, she has to find out about how frequently the no-no is *really* happening.

Beware at this point!

Because Miss Florence is ready to “blow her cool,” the frequency probably **SEEMS** much greater than it really is. It's safer by far simply to keep a record of how frequently Lovina “goofs” each period for a few days.

It's more scientific too.

Then, Miss Florence has her evidence.

## Gathering evidence

One way is to make a slash mark (/) or an X every time the “no-no” *occurs*. Another way is to make a mark every time a period goes by that the “no-no” doesn't occur.

The two cards below are samples of recording both ways.

<p>MONDAY</p> <p>X's show when the behavior OCCURS.</p> <p>Period</p> <p>1 XXXXX XXXXX XXXXX XXXX</p> <p>2 XXXXX XXXXX XXXXX XX</p> <p>*3</p> <p>4 XXXXX XXXXX XXXXX</p> <p>5 XXXXX XXXXX XXXXX XXX</p> <p>6 XXXXX XXXXX XXXXX X</p> <p>7 XXXXX XXXXX XXXX</p> <p>8 XXXXX XXXXX XXXXX X</p> <p>*Lovina was in P.E.</p>	<p>MONDAY</p> <p>X's show when the behavior DOESN'T OCCUR.</p> <p>Period</p> <p>1</p> <p>2</p> <p>*3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>*Lovina was in P.E.</p>
--	--

Still another way to record it, and probably the best way would be to make marks every time the *desired* behavior (raising her hand) *occurs*.

Our record would look something like this. Obviously, none happened on the day shown above. Let's look at the record for the next day at school, Tuesday.

TUESDAY	
X's show HAND RAISING BEHAVIOR.	
Period	
1	XX
2	XXX
3	
4	
5	X
6	XX
7	
8	XX
*Lovina was in P.E.	
Hand raises did not occur in periods 4 and 7.	

Now the fun begins...

We are going to try to change Lovina's behavior. We want to increase or strengthen hand raising behavior.

We have already established that Lovina is reinforced by points that she can use to buy things from the class menu.

So, all we have to do is this . . .

"Lovina, starting tomorrow morning, you can earn two bonus points for each time you remember to raise your hand for help."

Now, under these *new* conditions . . .

Let's record what happens today.

WEDNESDAY	
X's show HAND RAISES that got REINFORCED.	
1	XXXXX XX
2	XXXXX
3	
4	XXXXX
5	XXXXX X
6	
7	XX
8	XXXXX
*Lovina was in P.E.	

Remember, Lovina may still be coming for help *without* raising her hand, but we're not recording *that*. Yep, you've got it. We're simply *ignoring* that behavior. Teacher just goes on with her work and poor Lovina stands and waits by Miss Florence's desk until it dawns on her "My gosh, I forgot to *raise my hand!*" Miss Florence doesn't have to say a thing.

Now, let's compare the last two cards, the *before* and *after*. The Tuesday card shows frequency without reinforcement.

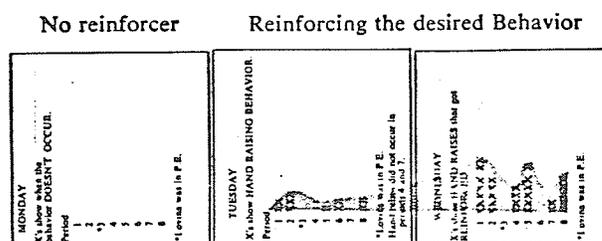
TUESDAY WITHOUT POINTS	WEDNESDAY WITH POINTS
Period	Period
1. 2 hand raises	1. 7 hand raises
2. 3 hand raises	2. 5 hand raises
3. 0 hand raise	3. 0 hand raise
4. 0 hand raises	4. 4 hand raises
5. 1 hand raise	5. 6 hand raises
6. 2 hand raises	6. 0 hand raises
7. 0 hand raises	7. 2 hand raises
8. 2 hand raises	8. 5 hand raises
Total: 10 hand raises	Total: 29 hand raises

## A helpful hint

You probably remember from earlier pages how we showed a change in one child's behavior—the fight scene.

You can do the same thing.

Line up your cards and shade over the X's like this.



The cards show the frequency of a desired behavior (for three days).

Notice how simply we can see the progress.

In doing so, you have a continuous chart of progress.

### *Note:*

For those classroom teachers who might be interested in trying to increase desirable behaviors in an entire class, the task is not really that forbidding. It can be done.

One way that has met with some success is this:

Simply place a small card on one corner of each child's desk. There's no need to tape them down.

## Further Background Information

## PHASE III - EXPLANATORY NOTES

REMEMBER:

All behavior is influenced by its consequences. Teacher's behavior influences students' behaviors. Students' productive behavior can be encouraged and increased through the following types of reinforcement:

1. General positive reinforcers include smiles, pats, winks, verbal approval, earned points, stars, stickers, and the appreciation of peers.
2. Encouragement is a more powerful reinforcer. Opportunities to achieve success builds up in the child the feeling of power, that he can do things, that he amounts to something. When he feels good about himself, he is better able to take frustrations.
3. Explanation leads to self-reinforcement when the child realizes he can do things. He does not become or remain dependent on the teacher's verbal praise.
4. Positive expectations show faith and trust in the child, help him set a goal which he can attain and give him a pat on the back. It also enables the child to see himself in a new light.
5. Contractual agreement, where the standards are not too high, rewards are not too distant, can provide the steps for successful completion of a longer task. For example, "Get ten of the sentences correct in ten minutes and the group can play \_\_\_\_\_ at recess." This time-tested technique was probably used by Aristotle when he tutored Alexander. The contract format and content are limited only by your ingenuity.

Example 1 - The child is completing his worksheet incorrectly and dawdles. After showing the child how to complete an item and the child completes one or two correctly, the teacher says, "Good, you can do it (expectancy). I'll be back in two minutes to see how many more you can do." Upon checking again while the child is working, the teacher says, "You've done (3, 4) more questions correctly. Now can you finish the page in ten minutes? I'll check back."

See pool of suggestions of contractual agreements which are attached for further suggestions.

### PAIRING OF POSITIVE REINFORCEMENTS

Pairing a strong and a weak reward strengthens the weaker reward. For example, a weak reward can be self-satisfaction for completing work and a strong reward can be praise. If you pair the two rewards consistently and often enough, praise when the child completes his work, the reward of self-satisfaction will be strengthened. Two rewards are better than one! Four are better than two! (Add a written comment, star or sticker.)

### SHAPING AND MODELING

The child misbehaves if he is discouraged and does not believe in his ability to succeed with useful means. He could also misbehave for attention seeking. You give him attention when he misbehaves, so misbehavior pays off! To counteract this, the following steps can be followed:

1. Give attention for appropriate behavior.
2. Ignore misbehavior; it will get worse before it gets better. He doesn't understand why you're not paying off. Maybe you don't notice it, he thinks. If you must punish, punish immediately after misbehavior, and punish severely. But remember, results of punishment for a chronic attention seeker are short lived. For permanent results, ignore and . . .
3. Provide an acceptable substitute behavior.
  - (a) Tell him what you want and expect him to do it. For example, to the child who continually wanders around and doesn't attend to his assigned task, say, "I want you to stay at your table and do your work."
  - (b) Through shaping, reinforce him for an approximation of the desired behavior. Example - as child wanders, say, "You are going to your table to work, John, aren't you? Good!"
  - (c) In small steps, continue reinforcing closer approximations until the desired behavior is achieved. Example - When John goes to his table readily after a comment, ignore wandering behavior. Wait until he is beside his table or at it and comment, "You're

going to work now, John. Good!"

- (d) Then reinforce only for that behavior and not approximations. Catch him working! When you do, comment, "I'm pleased to see you working. You'll soon be finished."
- (e) Through modeling, reinforce others in the group who are showing evidence of the desired behavior. Example, when John was wandering and another child was working, comment, "I see Bill is doing his work. So is \_\_\_\_\_. John is also, after he has gone to his desk."

CAUTION: Don't take or tackle too big a change at once. Take some steps through shaping, if necessary.

While trying to eliminate undesirable behavior, identify some desirable behavior to displace the undesirable behavior. Reinforce this desirable behavior, which may need shaping by above type of reinforcements.

#### ENCOURAGEMENT

Few would deny the need for encouragement or would be unwilling to provide it for the children. But regardless of how they may try, somehow they fail, often without knowing it. Confusion with praise can be a deterrent to encouragement. Even the well-meaning and sincere educator may often fail to convey much needed encouragement if he tries to express his approval only through praise. No doubt, praise can have an encouraging effect on a child. But it may not, if the child maintains his low opinion of his ability and therefore considers the praise as unjustified. Praise may have a discouraging effect in the long run, since the child may depend on it constantly and never be quite sure whether he will merit another expression of special approval - and get it. Real encouragement should increase the self-confidence of the child. The following suggest ways of encouraging children:

1. Develop attitudes that indicate it's alright to try; failure is no crime.

2. Provide plenty of opportunities for successful achievement. Don't set standards so high children are constantly falling short. Conversely, don't set standards so low that children achieve this with no effort. Some challenge is necessary for learning to take place.
3. Be pleased with a reasonably good attempt. Show confidence in their ability to become competent, to give an answer.
4. Accept children as they are. Let them know that you like them and are pleased with them.
5. Use the encouraging potential of the group, peer recognition, by pointing out the child's success to the group. You use the discouraging potential of the group when you call the class's attention to misbehavior.

Dreikurs<sup>1</sup> gives some illuminating incidents that exemplify several aspects of encouragement:

#### *Creating Self-Confidence Through Faith in the Child*

One needs not only to show faith, but to be convincing enough to develop faith in the child. The teacher must solidly communicate the "I know you can do it" attitude.

The first grade was presenting a program for the other grades. The program was a play which involved some reading. The best readers were chosen for the leading roles. The day before the program many of the children were not in school because of illness. The teacher had to find replacements. Danny was a boy who never read in class. He did not like to read and never read well. The teacher took this opportunity to stimulate him. She said, "Danny, would you like to take the reading part? We need someone who can do a good job, and I am sure you can."

Danny was reluctant. Tryouts were scheduled for lunch hour. At lunch time Danny was there. He was not the best reader, but the teacher told him he read well. The teacher helped Danny after school, and Danny took the play home to practice. The next day on the program Danny was an effective reader replacement. He had an opportunity to attain real social status, to belong. He felt successful when the play was a success. From that day on Danny loved to read and volunteered frequently in the classroom.

<sup>1</sup>Dinkmeyer, D. and R. Dreikurs. Encouraging Children to Learn, N.J.: Prentice-Hall, 1963, p.52-53.

*Recognizing a Job Well Done  
and Giving Recognition for Effort*

Children sometimes persuade teachers that they cannot function. The teachers are surprised to learn the real capabilities of the child once proper recognition is given.

Tommy had been a problem all year in many ways. Because he failed to turn in arithmetic assignments, he had been held back from going on to multiplication with the rest of the group. He appeared to accept this calmly and continued to function in the same manner, until one day I gave a test including addition, subtraction, and multiplication. He was instructed to do only the first two parts. Much to my amazement he did part three and did it exceptionally well! I praised him highly in front of all, and soon the children too were encouraging him. Tommy functioned effectively in arithmetic from that point on.

Here we are exposed to the importance of recognition. The teacher wisely chose to believe in Tommy. She acted prudently and gave full recognition to his effort. Children can be influenced positively when teachers react at the "teachable moment."

*Utilizing the Group*

We assume that all behavior has social meaning and that one of the child's prime purposes is to belong. Awareness of this goal suggests that the teacher use the group for the optimal development of the individual. In the ensuing incident the teacher used the seating arrangement of the classroom.

I rearranged the seating in the classroom early in April. One of the changes was placing Ruth and John next to each other.

Ruth is a somewhat withdrawn child who does above average in her school work. She is an avid reader and has an extensive personal library which includes a variety of science and history books for young children. Many of these books are kept in school either in Ruth's desk or in her locker. All of her spare time is spent reading books. Her social contacts are almost nonexistent.

John is an active, outgoing boy, somewhat of a discipline problem. He is slightly below average in achievement. The apparent cause of poor achievement is his inattentiveness combined with a desire to finish, regardless of quality, all he is assigned.

Within a few days after the change in seating, I noticed that John asked Ruth about a book she was reading. She passed it to him, and John started to look through it, making a comment now and then and calling her attention to a picture. I walked past their desks and saw that it was a book about the planets. Soon Ruth was letting John borrow her books. He has been spending a lot of time reading both in school and at home. Recently, I saw Ruth and John talking outside after school. The children tell me they walk home together almost every day.

Here we note the teacher used two personalities to supplement each other's development. This judicious use of seating arrangements, which showed an awareness of the importance of socio-metrics, could benefit many children.

Teachers' expectations are communicated to students.

Expectations not only cause us to notice some things and fail to notice other things, they also affect the way that we interpret what we do notice. The optimist, for example, notices that the glass is half full, while the pessimist observes that it is half empty. Mistaken beliefs and attitudes about other people are self-perpetuating and difficult to correct because of their tendency to influence how we interpret what we see. If we are convinced that a person has particular qualities, we often see these qualities in him when we observe him.

Consider the teacher who asks a complex, difficult question and then gives his students some time to think about the answer. After a while he calls on Johnny Bright, whom he sees as an intelligent and well-motivated student. Johnny remains silent, pursing his lips, knitting his brow, and scratching his head. The teacher knows that he is working out the problem, so he patiently gives him more time. He has an attentive and eager expression as Johnny begins to speak. Finally, Johnny responds with a question, "Would you repeat that last part again?" The teacher is happy to do so, because this indicates that Johnny has partially solved the problem and may be able to do it by himself with a little more time. He asks Johnny what part he wants repeated and then obliges. He then waits eagerly, but patiently, for Johnny to respond again. If someone interrupted the teacher at this point to ask him what he was doing, he might respond that he was "challenging the class to use creativity and logical thinking to solve problems."

Suppose, however, that the teacher had called on Sammy Slow instead of Johnny Bright. The teacher knows that Sammy is a low achiever, and he does not think Sammy is very well motivated, either. When called on, Sammy remains silent, although the teacher notes his pursed lips, his furrowed brow, and the fact that he is scratching his head. This probably means that Sammy is hopelessly lost, although it may mean that he is merely acting, trying to give the impression that he is thinking about the problem. After a few seconds, the teacher says, "Well, Sammy?" Now Sammy responds, but with a question instead of an answer, "Would you repeat that last part again?" This confirms the teacher's suspicions, making it

Reference: Good, Thomas L. and J. E. Brophy. Looking Into Classrooms. N.Y.: Harper & Row, 1973, p. 84-85.

clear that any more time spent with Sammy on this question would be wasted. After admonishing Sammy to listen more carefully, he calls on someone else. If interrupted at this point and asked what he was doing, the teacher might respond that he was "making it clear that the class is expected to pay close attention to the discussion, so that they can respond intelligently when questioned."

In this example the teacher's expectations for these two students caused him to see much more than was objectively observable to a more neutral observer. The observable behavior of the two boys was the same, and they made the same responses to the initial question. Yet the teacher interpreted the behavior quite differently by reading additional meaning into it. His interpretations about the two boys may have been correct, but we (and he) cannot tell for sure because he did not check them out. Instead, he acted on them as if they were observable facts, so that his treatment of Sammy was grossly inappropriate.

Although the need to continually check out and adjust expectations may seem obvious, it can be difficult to do, in everyday life as well as in the classroom. (For example, the widely advertised brand is not always better than the unknown brand, the more expensive item is not necessarily better than the cheaper one, nor is the large economy size always a better bargain than the regular size. Yet every day most people automatically accept such things without checking them out.)

Similarly, the fact that a student could not do something yesterday does not mean that he cannot do it today, but the teacher will not find out unless he gives the student a chance. Expectations stress the stable or unchanging aspects of the world. The teacher, however, is a change agent who is trying to make his students something different from what they are today. Therefore, he must keep his expectations in perspective. To the extent that they are negative, expectations represent problems to be solved, not definitions of reality to which he must adapt.

### Changing Poor Self-expectations.

Mike was an intelligent boy in the fifth grade who found the mistakes of his classmates very amusing. He laughed at them and was openly contemptuous. He occasionally got into fights at the playground. When he was asked to write an essay about himself he dwelt on the theme that he was a bad boy and could never keep out of trouble, even when he tried. I told him that I didn't agree with him, that neither he nor anyone else was "bad," and that I would try to help him keep out of trouble if he really wanted to be friendly. I said we couldn't allow anyone to laugh at a person who made mistakes because he would be so embarrassed that he could not think clearly. I reminded him of some of the boys who had been friendly to him. I told him that I liked him and was glad to have him in my room in spite of the fact that I sometimes had to ask him to leave the room when he was cruel.

Another boy in the class was having trouble with reading and could not read the social-study book at all. I asked Mike if he would be willing to help him by listening to him read out in the hall and by studying the social-study material with him. Mike seemed to be glad to try this. He did a very good job of it all the rest of the year. He was friendly and patient with Richard, and they became good friends. He never gave up his cruel teasing completely, but it became less frequent. He looked at himself in a less critical light, too.

*Comment:* Here is an example of a child who felt he was bad and destined to be a troublemaker. Many children assume this attitude, and the very interaction that their behavior inspires in adults seems to fortify the mistaken concepts. Thus the child produces in others the response he expects and increasingly comes to believe that he is inadequate.

It would have been easy for the teacher to follow Mike's lead since his behavior must have been annoying and disruptive to the organization of her group. However, she refused to behave in line with Mike's expectations, although she did do some preaching.

Most important of all, she indicated to him that she liked him and that her acceptance of him was not dependent upon his behaving in some preconceived manner. The acceptance was complete, even though occasionally he might be requested to leave the

Reference: Dinkmeyer, D. and R. Dreikurs. Encouraging Children to Learn, N.J.: Prentice-Hall, 1963, p.78-9.

group. She also found a way for Mike to function within the group and change his position. You will note that she first determined if he would be willing to cooperate and then, assuming that he would behave responsibly, turned the job over to him. As is frequently pointed out, we cannot always expect complete change without additional therapeutic assistance. However, Mike did begin to move in the right direction and certainly this experience initiated a new series of social relationships for him.

Dick began first grade in my room. At the beginning of the year he appeared to be very noisy, belligerent, and unconcerned about what he did.

One day Dick was doing his writing and making more of a mess than usual when I said to him, "Dick, I know you can do better than that." He replied, "Oh, no, I can't. I can't do anything that is good." I then asked, "Where did you get that idea?" He said, "My brothers and sisters think I'm not good in anything. I always make mistakes. They say everything I do is baby stuff."

Dick was always one of the first children to arrive at school each day. One morning I said to him, "Dick, I need help badly. I am such a forgetful person that I never change the calendar and it is never in order. I have been watching for a good dependable person to be my helper and take care of the calendar. I think you are just that kind of person. Would you like to have that job?" He answered quickly, "I sure would." Then he thought a while and added, "But maybe I will forget, too." I said, "Oh, you can't possibly be as forgetful as I am. But if you should forget that will be okay, too." From then on he was my calendar helper and never made a mistake. I praised him highly for this, and he was very pleased. Because I made quite a bit of his dependability, the other children chose him quite frequently for other room duties which he performed just as well. Then I could praise him more.

I had conferences with his mother, and she helped at home by seeing that the other members of the family encouraged him as well. Each day they let him tell about his school work and his jobs, etc. They took time to listen to what he had to say, and no one was permitted to call it "baby stuff." His mother said he was most proud of being a dependable calendar helper because he did it better than his teacher.

Gradually his school work improved. His belligerence seemed to stop overnight. Best of all, his attitude improved immensely. He truly became one of my best pupils.

*Comment:* Here was a child whose past experiences had led him to believe that he was not able to function as well as the other members of his family. Hence, he came to school with a belligerent attitude. The natural inclination of the teacher might have been to show Dick who was the boss. Instead, she decided to show him that he could be of service to her. This again shows the wisdom of giving jobs and responsibilities to children who need them, and not to the children who have "earned them." The "good" children do not need to be rewarded continuously, but *the discouraged children do need an opportunity to serve.*

Even when Dick indicated his uncertainty about his ability to perform the task adequately, the teacher assured him that this would not be a problem.

## APPENDIX G

## Reading Relevancy

1. Rationale
2. Pool A: Developing Experience with Books
3. Pool B: Extending Experience with Books
4. Pool C: Experience with Own Words and Stories
5. Child's Record Form

THREE POOLS OF ACTIVITIES FOR  
READING RELEVANCY

RATIONALE:

To foster a positive attitude towards reading, it is necessary to enjoy happy school experiences with books where appropriate materials, relationships with teachers and peers encourage favorable attitudes towards learning to read. Desire to read underlies reading readiness. The purpose of the pool of suggested activities is not to teach reading, but to develop a positive attitude towards reading. That is, "Reading is fun" and "I can learn to read".

POOL "A": Developing experience with books

1. Integration of pre-reading activities or experience: Seven sequential pre-school activities have been outlined:

- (1) manipulation, handling, turning pages;
- (2) pointing at pictures, objects;
- (3) naming objects;
- (4) simple narrative sentences about pictures;
- (5) interpretation of pictures;
- (6) storytelling, notice of print;
- (7) differentiation of reality and fantasy.

By observing the child with books, determine what stage he is at. If each hasn't reached stages six and seven, develop these through experience with books.

2. Allow the group to browse through an attractive book display and individually choose a book which would be read to the group.
3. Read books that have been chosen individually aloud to the group. Simple stories could be reread so the children can have the experience later of looking through a book while mentally reconstructing the story and language heard.
4. Allow the group to listen and react to a story or book read by the teacher. The teacher can help them to relate the story events to their own personal experiences.
5. Encourage the group to experiment with books, explore picture books. Let them express individually whatever ideas the pictures suggest.

POOL "B": Extending experience with books

1. Draw a picture depicting an episode from a favourite book or story. Provide the child with an opportunity to talk about it.
2. Build up the concept of book care, picture interpretation, language understanding, anticipation of learning to read the story as a result of talking about the picture cues:
  - (a) during the reading of the story;
  - (b) after a story is read;
  - (c) before the story is read.
3. A child can share a book with the group. It could be a book that had been read to him which he could talk about. This can later progress to where he can read a favourite page or sentence.
4. A child's own sentence could be printed below his painted or colored picture depicting a favourite story, displayed and read to the group, by the group or individuals.
5. Through discussion, encourage group interaction on:
  - (a) why we like books; then future discussions,
  - (b) why I like this book;
  - (c) how does this story make me feel?

POOL "C": Successful experience with reading own words and stories

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1. Begin a personal word file. The child would choose his own word to learn. This is put on a 3" x 7" card. Several minutes are spent teaching this word to the child (configuration, analysis of initial and final consonants, meaning, in a sentence, tracing, printing, etc.). After initial word introduction, this could become a group exercise where each of the steps could be carried out simultaneously with each child doing his own word. After several words have been learned, each child can be given an opportunity (after own review) to read his words to the teacher and keep his own personal record. A record sheet is provided. These could be kept in individual file folders.
2. Print sentences or short language experience stories based on the child's own word or words. These can be displayed and read by others as well.
3. A child's sentence story of a personal experience can be printed, signed by the child and displayed for a day. This could be read by the child and others. For example, "I have a pet rabbit", "We visited Grandmother."
4. A sentence or caption can be printed below a picture brought in by one of the children. This could be signed by the child, displayed on the bulletin board and read by different children.
5. Language experience story based on one of the group member's experience.

HOW many words do I know ?

0 1 2 3 4 5 6 7 8 9 10

Monday

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Tuesday

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Wednesday

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Thursday

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Friday

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Monday

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Tuesday

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Wednesday

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Thursday

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Friday

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Name \_\_\_\_\_

APPENDIX H

Suggested Treatment Comments

## SAMPLE POOL OF POSITIVE REINFORCEMENT

VERBAL - General Positive

good	good for you	that's the way to do it
lovely	that's good	that was very good
excellent	very good	you got them!
that's right	good girl	that was lovely
good boy	I like that	I like the way you said that
you're right	good for you	I like the way you did that
good work	you've got it	you've been working very well
good job	that's fine	keep up the good work
thank you	right	you did a good job

- any of the above preceded or followed by the child's name

Others that you generally use and would like to add to the list:

NON-VERBAL

nod of approval	pat on the shoulder, head
wink	smile, other facial cue that shows approval

- other suggestions:

ENCOURAGEMENT

- when the child seems to hesitate, "that's right, keep on".

- you remembered.
- you're trying, you got the first letter correct.
- you're doing very well, you've got half of your page done already.
- you're almost finished, good.
- John is doing well, but needs a little help with the word. Can you help him?
- nod of the head, smile, pat on the shoulder, etc. when the child is attending to the task at hand.
- verbal and written comments regarding the number correct, number completed in relation to previous achievement; that is, "this is much neater work", "you're trying harder now", "that was a good story you wrote", "you're getting more of your work correct now".
- any other comment of encouragement that is related to a specific task that the child is engaged in.

#### EXPLANATION

- you knew all your words today. That's better than last day.
- you knew more of your words today than last time
- I like the way you thought about the whole story before you answered the questions today.
- I like the way you looked at the whole word (all the words) before you said it.
- you're being more careful with your work now.
- you're being more careful with your work. And it's all correct. Aren't you proud of it?
- all of your work has been correct for several days. Doesn't it make you feel good?
- you've finished your work again today. Good for you!

PEER RECOGNITION

- he got that all by himself!
- he read that all by himself (without any help).
- did you notice that John is looking at his sounds now?
- isn't that clever! That's something John discovered all by himself.
- look at how well John has worked today. That sheet is all finished.

EXPECTANCY

- I think you can finish that page by yourself now.
- you did this before, so I think you can get it.
- you know this word; it's the one you chose to read the last time.
- I know you can do it.
- that's right, that's the way to do it.
- you got that so easily, I know you'll get the rest of the page correct.
- I'll be so proud of you when you finish it.
- that's right, keep on.
- you did so well when we did it together. You can do just as well by yourself now.
- the last couple of words (questions) might be a little tricky, but I know you can do them if you think carefully.

CONTRACTUAL AGREEMENT

- when you finish, you can play with that game.

- if you study your words and can read them to me in \_\_\_\_\_ (ten) minutes, you can help \_\_\_\_\_ with his project (or any other pleasurable activity that the child would like to engage in and that would provide an incentive to complete a realistic task.
- can you work for five minutes without stopping? I think you can.
- if you do that (finish that), then \_\_\_\_\_ (pleasurable activity).
- how much can you get finished in two minutes? Let's check.