A COGNITIVE-AFFECTIVE CHANGE PROGRAM TO ALTER ATTRIBUTIONS OF RESPONSIBILITY IN PEER RELATIONSHIPS

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CHAPTER I

THE RESEARCH PROBLEM

Introduction

Peer groups influence adolescents in both positive and negative ways. Peer groups play a positive role in the identificaion process of adolescents, in terms of sexual identity, occupational choice, moral and ethical standards (Erikson, 1963). The peer group provides a safe place to test and clarify the values of others in reference to self and family values. However, if the individual takes on group values, then the adolescent is temporarily relieved of making his/her own decisions (Erikson, 1963), by substituting peer values for family values.

It must be considered that even though the peer group may provide a safe context in which to try out behaviors, peers exert their own brand of tyranny on group members to conform to their standards of behavior, values, dress and activities. Recognizing that some groups have values that are compatible with an adolescent's family values, for example, high academic standards, it must also be recognized that other groups may exert pressure on members to conform to behaviors that are antiauthority or antisocial in nature, such as drug usage, vandalism, and shoplifting (Sebald, 1968).

Acceptance into a peer group is dependent on conformity to its standards, and failure to conform may lead to rejection. One of the major reasons for loss of membership in a group is challenging the authority of the group (Dunphy, 1963). Most adolescents have not developed sufficient ego strength or an internalized set of standards to be able to withstand the stigma and isolation resulting from social rejection (Dunphy, 1963); therefore, they conform.

Most adolescents are vulnerable to behavior contagion regarding mood, attitude or overt behavior. Peers who have prestigious attributes, such as "being cool" or who are physically attractive, and are aware of their own attributes, may gain power over the group and initiate behaviors that are imitated by others (Polansky, Lippitt & Redl, 1950). To risk non-conformity to the power structure of the group requires either a strong ego or a heightened fear of punishment by adults. Peer punishment for non-conformity may be meted out in the form of ostracism, ridicle or overt hostility by the group. In response to such pressure, the adolescents tentative personal standards may collapse to avoid hostile relationships with peers.

Research substantiates some of the problems that appear to be directly attributable to peer pressure and include: suicide and depression (Freedman, 1967; Haim, 1974; & Jacobs, 1971); alienation (Miller, 1975; Toolman, 1975); being unwanted or treated as an expendable nonperson (Reynolds & Fargeraw, 1978); and drug use (Kandel, 1974).

The study of Hockman and Brill (1973) indicates that an individual who is having academic or social problems may use drugs to escape the situation and spend as much time as possible in a euphoric state. Sexual activity may be indirectly sanctioned by members within peer groups (Reiss, Bonwart & Foreman, 1975), with concomitant problems of an unwanted pregnancy that may be terminated by abortion (DeLessovoy, 1973), or early marriage followed by divorce (Grinder, 1978), or venereal disease that is now in epidemic proportions for the age group 15 to 25 (U.S. Public Health Service, 1975). Increased vandalism and violence in the schools may be directly attributable to the peer influence of specific groups that may kindle a chain reaction of vandalism or violence among other students (Ianni & Ianni, 1980).

Some adolescents appear to be more susceptible to peer influence than others. Research substantiates the following factors relating to personality that influence conformity to peer pressure. Younger or more immature adolescents, (who have feelings of low self competence and a high need for approval, but view their peers as being high in self competence) tend to imitate group behavior (Sullivan, 1953; Landsbaum & Willis, 1971). Conforming to group behavior by imitation, enables them to gain a sense of security in social situations (Campbell, 1969). People tend to choose models that are socially rewarding (Bandura, 1969). As a result, moral courage, responsibility, honesty and friendliness are influenced by the opinions of peers (Lasseigne, 1975).

The need for a social structure that is found within the group subculture, that may also sanction behavior that is counter to family values, emerges with the need to establish an identity that is separate from family identity (McCandless & Coop, 1979).

Self esteem is another factor that is an important part of an individual's identity. Adolescents who are less popular are more likely to have had negative experiences in social relationships, and more likely to have a lowered self esteem (McCandless & Coop, 1979). Negative social experience fosters an expectancy for future failure, and low self esteem becomes incorporated into the self concept. Expectancy for failure in social relationships persuades the adolescent to believe that others control the reinforcement of events in their lives rather than being in control themselves (Rotter, 1966). As a result of this expectancy, adolescents tend to develop perceptions that they are pawns to be moved about by parents, teachers, and others, with limited opportunity to influence their own movements (DeCharms, 1968). Perceptions of being pawns are conceptualized also in the construct of learned helplessness, whereby the individuals believe that they have no control over events or no impacts on others, and tend to become frustrated and lose interest in acting on their own behalf (Seligman, 1975). Many adolescents develop feelings of anomie or alienation, that keep them from interacting positively with peers. This sense of alienation supports feelings of being unable to

impact on people or events around them; thus, adolescents become enmeshed in a recurrent course of self-fulfilling prophecy (Rosenthal & Jacobson, 1968).

In view of this brief summary regarding aspects of peer pressure, a change program that is developed to provide the necessary skills and experience in making responsible decisions, may free adolescents from some external pressure from peers. Such a program needs to develop the individual as he/she relates within the peer group and also be appropriate for the school setting. This program should include affective components that lead to the development of an understanding of the feelings of the adolescent him/herself, as well as the feelings of peers in the decision making process.

Statement of the Problem

Much research has been conducted regarding internal/external causal attribution, but no previous research investigation has attempted to examine the effects of a change program that is designed to alter perceptions of assigning causes of behavior to external sources within the peer group. Research has been done in the area of achievement, with the purpose of changing perceptions regarding external causation to internal causation, whereby the student began to perceive that he/she could alter achievement levels by exerting greater effort. The effect of this change in perceptions was that he/she could exert control in his/her own behalf (Dwek, 1975). Weiner, (1980) has made contributions to the area of

identifying the affective components that are associated with internal or external causation. However, research has not been attempted to incorporate affect into a change program for altering perceptions of assigning causes to behavior. The current study used an experimental design that includes control, placebo and experimental groups.

Purpose of the Study

The purpose of this study was to attempt to change causal attributions from external to internal. Specifically, the purpose was to alter perceptions of success or failure in school and social situations, from attributions of task difficulty or luck to attributions of ability or effort. The change in causal attributions was to be accomplished through a change program of cognitive and affective activities that were designed to develop skills in making responsible decisions. Affective components were included to develop a generalized set of values regarding the adolescents' own feelings as well as the feelings of peers. It was suggested that affective components tend to influence and motivate behavior in making responsible decisions.

The specific questions for which answers were sought in the present research were: what is the effect on students in terms of the way they attribute causes to behavior, as a result of having participated in this change program? What difference does it make to include affective components in terms of self understanding?

Significance of the Study

The present study of a change program to alter ascriptions of causal attributions is significant in that the program could lead to adolescents ascribing causes for behavior to internal attributions of ability or effort, and decrease ascriptions of causes for behavior to external attributions of task difficulty or luck. The impact of this change, could possibly be projected to a greater assumption of responsibility for one's own behavior, as a result of participation in the change program.

Definition of Terms

Definition of terms pertinnent to this study are as follows:

Students are defined as 8th grade students in regular class placement.

Change Program Activities, which are outlined in a six-week program format, were designed to teach the cognitive skills involved in decision making and problem solving; and activities that were designed to develop an understanding of feelings or affect of the self individually, and of others in making decisions.

Casual Attribution[1] (Harvey, Ickes, & Kidd, 1978),

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[1]J. H. Harvey, W. Ickes, and R. F. Kidd, New Directions in Attribution Research Vol. 2 (Lawrence Erlbaum Associates, Pub., Hillsdale, N. J., 1978), pp. 10-15. Terms pertinent to the study are those associated with a change of perceptions that are indicated by a change in causes or attributions that are assigned to situations of success or

indicates the manner that individuals' commonly assign causes to behavior, as measured by performance on the Affective Causal Attribution Checklist (Franke, 1982), and the Causal Attribution Scale-Revised (Bull & Feuquay, 1980).

Internal Causal Attribution assigns motivation for behavior within the individual (attributed to ability or effort).

External Causal Attribution assigns motivation for behavior to environmental sources (attributed to task difficulty or luck).

Affective Causal Attribution indicates the feelings that accompany behavior that is ascribed to causation (Weiner, 1980). These affects describe the feelings that are consistently associated with the belief that is held regarding internal (attributed to ability or effort) or external (attributed to task difficulty or luck) causation in success or failure situations of school or social settings.

Affective indicates the feelings, emotions or

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failure in school or social situations. Specifically, internal and external locus of casual attribution and the affects that are associated with those projected perceptions are the focal point of this study. Internal causal attributes indicate motivation for behavior from within the individual. External causal attributes indicate motivation for behavior from environmental sources. Affect indicates the feelings that are assigned and accompany the behavior that is projected to the cause for behavior. In the text, "internal or external causation" will be used interchangeably with "internal-external attributions"; or merely "internal or external" causation. Another phrase that is associated with internal or external causation is termed "locus of causation".

subjective reactions or responses that are related to attitudes, outlook, belief, opinion, or thought.

Categories of Causal Attribution are causes that are generally assigned to behavior, but are not regarded as exclusive causes (Weiner & Freize, 1974).

Ability indicates the natural or acquired proficiency to perform.

Effort involves the active use of energy to perform or produce a result.

Task Difficulty indicates that the work assigned to be done may be easy or difficult.

Luck indicates an unpredictable outcome due to change or fate which is not under the control of the individual.

The two instruments used (ACAC, Franke, 1982, and CAS-R, Bull & Feuquay, 1980), provide the following measures: the ACAC provides 18 scores indicating students attributions of success, failure, school, and social; the CAS-R provides 24 scores indicating students attributions of influence and frequency, in terms of success and failure in school and social settings.

Hypotheses

The specific hypotheses investigated in this experiment are:

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions (control, placebo, experimental).

Alternative Hypothesis$_1$: There is an interaction of the time interval and treatment conditions.

Specifically:

Null Hypothesis$_2$: For each of the three treatment groups there is no difference between pre and post test scores for each of the dependent variables.

Alternative Hypothesis$_2$: There is a pre- post test difference for the experimental condition.

Null Hypothesis$_3$: There are no differences among the three treatment groups on the pre test.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternative Hypothesis$_4$: There are differences among the three treatment groups on the post test.

CHAPTER II

SELECTED SURVEY OF THE LITERATURE

Introduction

The basis upon which adolescents ascribe causes to behavior in peer relationships of both a social and an academic nature have implications for both success and failure in these situations. There is an abundance of research regarding student motivation in social and academic situations: however, recent research has focused on the cognitive-affective variables that are ascribed as causes for success or failure in social and academic situations. Researchers assume the presence of these cognitive-affective processes, and have attempted to delineate how these processes mediate the attribution of causes to behavior and become a part of personal reality.

Theories Related to Attribution Theory

In order to describe the characteristic behaviors and the processes through which attributions are assigned to behaviors, there are two other psychological constructs that are closely related to and clarify the implications of attribution theory. These constructs are locus of control (Rotter, 1954) and expectancy value theory (Atkinson, 1964;

Weiner, 1972).

The assumptions of locus of control are that an individual responds subjectively to an environmental situation based on his/her past experience, that social behavior is learned and that there are common threads of personality that are stable whereby new experiences are viewed with past experiences in mind (Phares, 1955). Locus of control may be seen as either an expectancy arising with specific situations or may be a relatively stable characteristic across situations (Phares, 1955). Expectancies are regarded as prime determinants of behavior and are learned (Rotter, 1954). Successful experience leads one to expect success, whereas failure decreases the expectancy for goal attainment (Phares, 1955). Changes in expectancy may occur by introducing new experiences that alter threatening or stressful situations and are proportional to the expectation of personal control over situational events (Phares, 1955).

Atkinson's (1964) expectancy-value theory suggests that the factors that determine the intensity of aroused motivation incorporate both the expectancy that a given reaction will lead to goal attainment and the incentive value of the goal object (Bar-Tal, 1978). If individuals perceive that goals are attainable and also higly attractive, they are more likely to approach those goals; in contrast, they are likely to avoid these goals or tasks if there is a probability of failure and the goals are unattractive (Bigge and Hunt, 1980). The motive for success is stronger when one feels responsible for the outcome, when there is immediate

feedback of results, and when there is a minimal degree of risk of failure. The perceptions of the probability of success are based upon the consequences of one's previous experience in coping with similar goals, and are subjective in nature (Bigge & Hunt, 1980). Atkinson (1964) maintains that goal difficulty is the criterion for the value of success. The more difficult the goal, the greater the pride is in attaining that goal, whereas the easier the goal, the greater the amount of shame when it is not achieved (Bigge & Hunt, 1980).

To integrate the constructs of locus of control and expectancy value, there are three types of personal control that emerge: (a) Behavioral - whereby the individual acts directly on the environmental event, (b) Cognitive - whereby one interprets events, and (c) Decisional - whereby one has a choice among alternatives. Perceived internal control leads to behavior that is calculated to achieve power over the environment, whereas perceived lack of control is interpreted as the cue to lower one' expectancy of success in controlling events, and results in a lower level of effectiveness in dealing with the situation (Averill, 1973; Julian, Lichtman & Ryckman, 1968). Perceptions of control or lack of control are mediated by cognitions that interpret events. Decisions are made regarding how to achieve power over the environment or minimize efforts in dealing with the situation. If an individual spends a substantial amount of time with no perceived control, or in unpredictable

situations, that individual may develop a generalized belief of being externally controlled by others that extends beyond a specific situation (Averill, 1973). This is contrasted with one who views situations as being under his/her own control (Lefcourt, 1972), which will be detailed in the following section.

Expected Behaviors of Internal Control

Research has shown that the following descriptions of behavior tend to be characteristic of those individuals who perceive themselves to be in control of various events or situations, or to be internally controlled.

Academic achievement is positively related to a belief in internal control (Shore, 1969; Lefcourt, 1972). Internal persons actively seek more information in order to deal more effectvely with the world and prefer a high probability of success (Julian, Lichtman & Ryckman, 1968). This point of view is contrasted with Atkinson's (1964) model, whereby the probability of success needs to be less than certain, particularly with high achievers. Moderate risk is seen as a stimulator toward action rather than a deterrent. Atkinson (1964) views incentive as a function of the difficulty of the goal.

Internally oriented individuals derive a sense of autonomy and mastery through manipulation of the environment to achieve need satisfaction (Sullivan, 1953). Internally oriented individuals take more time to make decisions when they are based upon their own skills (Lefcourt, Lewis, &

Silverman, 1968); however, they exhibit greater anxiety under skill conditions (Ryckman, Gold, & Rodda, 1971). Individuals who are internally oriented will resist efforts of others to manipulate and control them. This is not to say that they never conform, but will conform due to deliberate, reflective thought based on the expectancy of positive or negative reinforcement.

Internal persons participate more actively in social change because they believe they can effect change. In situations that produce cognitive-dissonnance, internal persons assume greater responsibility to change attitudes to reduce dissonance rather than remain in an unpleasant state (Phares, Wilson, & Klyver, 1971). This is related to control, forseeability, or predictability (Festinger, 1957). Internal persons value personal control, seek control of the environment, and are generally more competent; which increases the success rate, which in turn increases self confidence (Phares, 1965). Internally oriented individuals see themselves as being responsible for their own behavior and also attribute responsibliity for self control to the behavior of others, rather than being a victim of circumstance (DeCharms, Carpenter, & Kuperman, 1965).

Those who are internally oriented tend to adjust aspirations upward after success and downward after failure (Feather, 1968). These individuals are less inclined to admit difficulties or inadequacies, and tend to protect themselves by denial or evasiveness (Hersch & Scheibe, 1967).

Studies have found that internal control is significantly related to the ability to delay gratification for long range goals, and the ability to endure the tension associated with delays (Lefcourt, 1976). Internal control relates to the persistence required to pursue long range goals as well as resisting temptation. Internally oriented individuals maintain high performance under heightened environmental stress due to coping skills (Wolk & Bloom, 1978).

Expected Behaviors of External Control

Research has shown that the following descriptions of behaviors tend to be characteristic of those who believe that they are controlled by external events or others in various situations.

Inability to control or predict outcomes may give rise to a variety of intrapersonal reactions, particularly in aversive situations. Similarities are apparent in behavior from situation to situation because individuals may perceive similarities in several situations that are in fact dissimilar. Individuals may experience a strong felt need, but have a low expectancy of attainment or little freedom of movement to attain it. This may give rise to a variety of maladaptive or defensive behaviors due to the assumptions of having no control to meet one's own needs (Lefcourt, Lewis & Silverman, 1968). Personal control and predictability can counteract aversive situations as individuals perceives that they have the ability to terminate a negative situation which, in turn,

reduces its impact (Lefcourt, Lewis, & Silverman, 1968). Individuals learn and perform better and with less anxiety when aversive stimuli are perceived as controllable. Perceived lack of control becomes the cue to lower ones' expectancy of attainment and results in a lower level of effectiveness in dealing with situations (Averill, 1973).

Personal responsibility is defined as a condition in which individuals can predict the consequences of their choices and voluntarily choose to behave in ways that are discrepant or non-discrepant from their beliefs (Cooper, 1971). Cooper (1971) suggests that personal responsibility will be reduced when one cannot foresee or predict personal control, or if it is in fact absent. Externally controlled individuals who attribute responsibility of negative consequences to outside sources, experience little or no attitude change because of lack of dissonance with their beliefs (Phares, Wilson, & Klyver, 1971). Lack of dissonance may account for greater risk-taking behavior in those who perceive themselves as being externally controlled, because they assume no personal responsibility for taking risks.

The concept of learned helplessness appears to emerge only when there is total failure, with no expectancy for control of reinforcement (Seligman, 1975). Externally controlled individuals appear to have a high level of need for approval and reinforcement from those who are perceived to have prestige or power. Attention to majority opinion, peer influence, the prestige of the communicator, as well as

social approval of others have a much greater impact on those who perceive control as external to themselves (Phares, 1965). Based upon this premise, there is a tendency to acquiesce to the judgments of others rather than maintain independent judgment, and external individuals are less able to withstand pressures to behave in a particular manner (Lefcourt, 1976), much less to risk rejection or penalty in order to maintain what they perceive as proper behavior (Midlarsky, 1971). Lack of confidence fosters dependence on others, yet external individuals tend to become coercive or punitive (or the objects of the same treatment) in power versus powerlessness situations (Phares, 1965). Externally controlled individuals seek power through the manipulation of others (Christie & Geis, 1970) and tend to become more opportunistic as a result of an attitude system that is indiscriminate, cynical, and Machiavellian. An external orientation is associated with a predominance of negative affective experiences, with tension and depression as common attributes (Lefcourt, 1976). One important aspect of depression is the perception that outcomes are independent of actions (Lefcourt, 1976).

In achievement situations, externally oriented individauls appear to adjust upward after failure and downward after success in expectancy of future success (Feather, 1968). External individuals appear to fail to make use of prior experience to prepare for the future, which retards

achieving behavior (Lefcourt, 1972; Ryckman, Gold, & Rodda, 1971). Students may believe that their efforts to achieve do not guarantee achievement, and that control of academic opportunities and recognition is arbitrarily dispensed by the teacher. Externally oriented students are more likely to manifest hostility since they experience more feelings of powerlessness to control negative outcomes (Bradley & Teeter, 1977).

Research findings substantiate that predelinquent and delinquent pupils tend to be more externally controlled than other students regarding risk taking behavior. Students who violate school rules such as smoking, truancy, tardiness, dress, demanor, who demonstrate poor relations with peers, and who show disrespect for authority, are more likely to become delinquent than those who conform to school rules. These adolescents conform to the rules of the peer group (Martin, 1975). Identification of students with an external orientation would be important in predicting problem behavior of students, with implications for treatment that provides an internal orientation as a means of reducing behavior problems (Nowicki & Barnes, 1973).

Research findings presented above suggest that perceptions of external control have many deleterious implications for school, social and employment situations, and for society in general.

Attribution Theory

Attribution of responsibility is closely related to locus of control. Krovetz (1974) found that both internal and external individuals form attributions that are consistent with their locus of control to account for successes and failures. Internally controlled individuals are less likely to attribute blame outside themselves following failure (Phares, Wilson, & Klyver, 1971). Belief in external control appears to diminish some negative consequences of failure by blaming outside forces. However, there is no difference between internal and external individuals in attributing credit for success.

Attributions and Achievement Motivation

Weiner and Frieze (1974) describe attribution theory as the relationship of information and concepts that enables the individual to interpret perceptions of the environment. This requires a model of thought that reflects the linkage between causal cognitions and the behavioral response or action. Weiner (1971, 1972; Weiner & Freize, 1974) proposed an attribution model to explain achievement behavior that is based on the assumption that beliefs regarding causes of success and failure, mediate perceptions of the task and the final performance.

Achievement is perceived as a goal that is predetermined by external forces such as parents, teachers, textbook writers and counselors. The problem then for the person who

has been assigned this goal, is to determine the causal factors that make this goal possible or impossible to achieve. It is the role or cause attributed to these factors by achievers and nonachievers that affects their own behavior and makes prediction of behavior possible (Bigge & Hunt, 1980).

According to Weiner and Freize's (1974) model of thought and action, causal factors and their relationships to individual predisposition or attitudes, are placed under the heading of antecedents, meaning that what comes first may influence what comes later. Causal factors are what individuals ascribe or attribute to themselves in terms of self perceptions.

There are innumerable causal factors that could be mentioned, but research in achievement motivation has been limited to the four causal factors of ability, effort, task difficulty, and luck (Bigge & Hunt, 1980).

According to Weiner and Freize (1974), the four causal factors are defined as follows:

1. Ability - Individuals make inferences about ability based upon past history of success and failure.
2. Effort - Effort is perceived in relation to ability, in that high previous performance is often ascribed to effort. Decline or improvement in performance is viewed as a decline or increase in effort.

3. Task Difficulty - This is usually judged by social norms of how difficult the task has seemed to others which is the basis for perceived stability.
4. Luck - Luck or chance is ascribed to an event if it seems completely beyond personal control or predictability.

Integrating locus of control with attribution theory, Heider (1958) presented four classifications of personally ascribed causes of behavior. If causes are classified on the basis of what persons perceive as the source of control, then ability and effort are usually viewed as coming from within oneself (internal factors); individuals usually see task difficulty and luck as coming from outside themselves (external factors). However, if the classification is based on the factors perceived as stable, then persons ascribe high stability to abilty (internal) and to task difficulty (external). Effort and luck are viewed as unstable variables, in that they may change from moment to moment. This research ascribes to the point of view that causes for behavior as the source of control, internal or external.

Behavioral Factors of Success and Failure

Kelly (1973) maintains that there are three behavioral factors that determine how people usually explain their successes or failures: the distinctiveness of performance (either success of failure); generality of performance

typical of that individual); and social consensus (performance in relation to others). These behavioral factors that determine how individuals usually explain their successes and failures, have been substantiated by Weiner and Frieze (1974). In addition, Weiner and Frieze (1974) suggest that (a) individuals ascribe outcomes of success or failure to the qualities of the task; (b) success is attributed to internal factors of ability and effort, and failure is attributed to external factors of task difficulty and luck; (c) outcomes that are incompatible with previous outcomes are attributed to unstable of effort and luck; and (d) the greater the degree of previous success, then future success is likely to be attributed to high ability, at the same time, the greater the degree of previous failure, then future failure is likely to be attributed to low ability.

The significance of this research is that subjects do attend to specific cues to make inferences about causal factors. Weiner and Freize (1974) defines these inferences as a relatively permanent structure or belief system, that delineates the relationship between an observed event and the perceived cause of that event.

Consequences Related to Expectancies

Some of the factors that maintain a particular belief of causation have been validated. For instance, students who have high achievement needs tend to attribute causation to ability and effort, whereas students who have low achievement

needs, tend to attribute all low achievement to low ability, disregarding the effects of effort (Bigge & Hunt, 1980). Kelly's (1973) notions of distinctiveness and social consensus help explain how high or low self image is maintained, in that when performance outcome is seen as low in distinctiveness and social consensus, performers ascribe outcomes to their own inner qualities (usually perform well and in comparison, others perform poorly). In addition, those who ascribe high distinctiveness and high social consensus to external factors, place blame outside of themselves when they have failed (they failed when they usually succeed and others have also failed).

Some of the consequences of perceived causes are largely determined by the perceived expectancy of success or failure, and the incentive value to attain a goal (Bigge & Hunt, 1980). When individuals ascribe either high ability to themselves or see a task as relatively easy, goals seem to be more attainable. Since ability and task difficulty are seen as relatively stable factors, then luck and effort are viewed as critical factors since luck can change and effort can be increased (Weiner & Freize, 1974). Effort is seen as more important than luck by most students; however students who are generally low in achievement typically do not see the significance of effort (Weiner & Freize, 1974). The expectancy of achieving a goal is altered after experience in trying to achieve a goal, in that past success leads to the expectancy of future success, and past failure

leads to the expectancy for future failure (Bigge & Hunt, 1980). Weiner and Frieze (1974) suggest that anticipated efforted is extremely important in determining the expectancy of success, particularly with high achievers. Persons who fail in situations in which they feel that their behavior is controlled by unchangeable causes tend to develop a state of hopelessness or learned helplessness. They no longer have positive anticipations (Dwek and Reppucci, 1973). In achievement situations, to ascribe failure to low ability leads to the belief that the future holds nothing but failure (Weiner & Freize, 1974).

Emotional States and Causal Attributions

Research has shown that locus of causation is of great importance in producing emotional states (Deci, 1975). Those who attribute causation internally, or to personal responsibility, experience pride in successful situations and shame in failure situations. However, those who attribute causation externally, experience very little emotional reaction in success or failure situations. The emotional states aroused are closely related to the value of a goal in success or failure conditions. Pride increases incentive motivation, whereas shame decreases incentive motivation. Pride results when students exert the effort to conquer a difficult task, whereas shame results when students fail to see that effort and success are closely related (Deci, 1975).

Weiner (1980) has recently attempted to make a

systematic statement about the role of affect in this approach to behavior which demonstrates how affect can be incorporated within attribution theory, and which illustrates the link between causal beliefs and feelings.

Some of the roles of affect addressed in this study are: that attributions are responses to affects; that emotions, rather than causal ascriptions, are motivators of action; and that affects can function as cues guiding self perception. Weiner (1980), derived the above roles through a compiled list of potential affective reactions to success and failure as well as identifying the dominant causal attributions for achievement performance (ability, effort, task difficulty, luck). In order to determine the intensity of reaction of subjects, Weiner (1980) used a story format of projected situations to report scaled ratings of the intensity of affective reactions. The outcome of this investigation yielded systematic findings that emotions are discriminably related to specific attributions.

The four dominant causal attributions of ability, effort, task difficulty and luck give rise to specific emotions following success and failure. The links between success and affective attributions are: ability leads to feelings of pride, competence and confidence; effort leads to a state of satisfaction or relaxation; task difficulty leads to feelings of gratitude, obligation or thankfulness; and luck leads to feelings of surprise. The link between failure and affective attributions are: ability leads to feelings of incompetence;

effort leads to feelings of anger; and luck leads to feelings of surprise (surprise can be either indicators of happiness or frustration) (Weiner, 1980).

Causal dimensions that play an important role in affective life are those that determine whether the locus of causation is internal or external to the individual. The internal attributions for success are ability and effort, which are manifested as feelings of pride, competence confidence and satisfaction. External attributions for success are in terms of others, task difficulty and luck, which are manifested as feelings of gratitude and thankfulness, which are other directed emotions. Internal attributions for failure are manifested by feelings of incompetence, shame and guilt, whereas external attributions for failure are evidenced by feelings of anger, blame, surprise or dismay. Locus of causation is associated with distinct emotional reactions.

In addition, duration or stability influences affective reactions such as depression, apathy, and resignation in terms of internal attributions for failure, when viewed as a lack of ability or a personality deficiency. Anxiety is another emotional factor that affects performance. Earlier research of McClelland (1951), assumed that anxiety was caused by failure; however, recent research shows that failure may be caused by anxiety. Attributions that convey a message that events will not change foster feelings of helplessness or surrender, and have clearcut ramifications for low achievers (Weiner & Freize, 1974).

There are clear connections between causal thoughts and both positive and negative feelings in achievement contexts (Weiner, 1980). It is also suggested that causal thoughts influence action through the mediating influence or affect. Emotions within the individual and those displayed by others, serve as cues to make inferences about ourselves and have important attributional consequences.

Cognitive-Affective Model

The following model of cognitive-affective attributions is based upon an expectancy theory of motivation (Atkinson, 1964; Weiner, 1972), and Rotter's (1954) locus of control. This model of attribution theory has been empirically verified by many studies (McMahan, 1973; Rest, Nierenberg, Weiner & Heckhausen, 1973; Rosenbaum, 1972; Weiner, Heckhausen, Meyer, & Cook, 1972; Weiner & Kukla, 1970; Weiner, Nierenberg, & Goldstein, 1976), and is based upon the generalized expectancy of the degree of control of contingencies of reinforcement that one has according to dimensions of affective-cognitive reactions (Bar-Tal, 1978).

In success situations the following reactions are expected as a function of attributions.

Ability - Affective reactions leads to increased pride. Cognitive reactions lead to expectations of similar high performance in the future.

Effort - Affective reactions lead to increased pride. Cognitive reactions lead to expectations

of possible change in future performance.

Task Difficulty - Affective reactions lead to decreased pride. Cognitive reactions lead to expectations of similar performance in the future.

Luck - Affective reactions lead to decreased pride. Cognitive reactions lead to expectations of possible change in future performance.

In failure situations the following reactions are expected as a function of attribution.

Ability - Affective reactions lead to increased shame. Cognitive reactions lead to expectations of similar low performance in the future.

Effort - Affective reactions lead to increased shame. Cognitive reactions lead to expectations of possible change in future performance.

Task Difficulty - Affective reactions lead to decreased shame. Cognitive reactions lead to expectations of similar low performance in the future.

Luck - Affective reactions lead to decreased shame. Cognitive reactions lead to expectations of possible change in future performance.

Affect needs to be recognized as playing a significant role in attribution theory because (1) attributions influence the way we feel about ourselves and about others; (2) feelings

motivate behavior; and (3) affects may serve as mediating cues to provide others with important information regarding ourselves.

Instrumentation

Affective causal attribution studies have been conducted that delineate the possible affective responses that are linked to the four categories of causal attributions of ability, effort, task and luck (Weiner, 1980). Responses were made on simple rating scales by assigning a cause for success or failure to simulated stories. To overcome weaknesses of this procedure, subjects then reported a critical incident in their own lives in which they actually succeeded or failed an exam for a particular reason, which was ascribed as their cause for success or failure.

Both investigations reported similar and systematic findings. There was a set of outcome-dependent, yet attribution independent, affects that covered broad positive or negative reactions to success and failure. These were reported as the most intensely experienced emotions. In addition, there were emotions discriminably related to specific attributions. Causal dimensions that represent the basic properties of causes are also essential to affective roles. Locus of causality (internal-external) is one dimension that is associated with a group of distinct emotional reactions. Duration of a cause or stability also influences affective reactions. Controllability is also directly linked to

emotional reactions. In summary, emotions are, in part, responses to causal ascriptions and are also dimensions of causality.

The ACAC (Franke, 1982) was developed in order to measure the affective responses that are associated with the four categories of causal attribution according to Weiner (1980). Weiner (1980) links success and internal affective causation as: ability with pride, confidence and competence; effort with relaxation or satisfaction. External affective causation and success are linked as: task difficulty with gratitude and thankfulness; and luck with surprise. Failure and internal affective causation are linked as follows: ability with inability or incompetence; and effort with guilt, blameworthiness or responsibility. Failure and external affective causation are linked with task difficulty and anger; and luck with dismay or a disturbed or perplexed response. The items for this checklist were generated from typical adolescent school or social situations in relationships with peers (Grinder, 1978; McCandless & Coop, 1979).

Normative and ipsative, forced-choice and likert-type scales have been used previously in measurement of causal attributions. Examples of ipsative, forced-choice scales are the Intellectual Achievement Responsibility Scale (IAR), (Crandall, Kathovsky, & Crandall, 1965) and the adult scale of the IAR (Weiner & Potepan, 1970). These scales yield scores of personal attribution by summing and weighting

equally, ability and effort and task difficulty attributions. Problems have been indicated by Weiner, Russel, and Lerman (1979) with the adult scale, arising from subjects' difficulty in determining which attributional factor refers to which item choice. A more viable alternative to the IAR and its various forms has been developed by McMahan (1973). This scale also employs a forced-choice, ipsative format, but uses simplistic responses that are easily categorized according to their reference to ability, effort, task or luck. Each factor is assigned one point each time it is checked as preference, thereby obtaining scores for an individual on each attributional factor. Forced-choice format is one means of controlling for social desirability of responses, but the ipsative nature of the scales limit their normative comparisons. A forced-choice format requires the respondent to choose between two descriptive phrases or terms, that appear to be equally acceptable, but differ in validity (Anastasi, 1976). Another attempt has been made to determine causal attributions, by using likert-type instruments by Hanes (1979). This scale retains normative advantages and leaves no room for confusion regarding causal factors; however, social desirability bias is still evident. A new scale has been developed by Bull and Feuquay (1980), to eliminate the statistical problems inherent in the forced-choice ipsative format of other scales, while retaining control of social acceptability by using likert-like items that were paired with the use of detailed instructions to the subjects.

According to Edwards (1957), effectiveness of scales in determining individual differences in achievement attributions is inversely related to bias due to social desirability.

An ideal scale would have responses in which there is general agreement as to which attributional factor is indicated by each item. The Bull and Feuquay (1980) scale appears to meet this criteria.

Applications and Implications

From the studies of Weiner (1980), Andrews and Debus, (1978); Chapin and Dyck, (1976); Dwek, (1975); Sparta, (1978); and Zoeller (1979), a growing interest in developing change programs based on attribution principles, have already met with some success. The focus of these programs has been to alter the perceived cause of failure in order to enhance achievement motivation. Debilitating causal attributions are believed to be ascriptions to low ability, while lack of effort is perceived to be the most adaptive attribution for failure. Altering ascriptions from low ability to effort regarding failure assumes that change can be made in the amount of effort expended in the future to alter failure, and that this is controlled by the individual. Ability is perceived as stable or unchanging and relates to the expectancy of success or failure as being stable or unchangeable. However, effort is perceived as unstable or changeable and relates to the perceived control of the individual to control the amount of effort expended to alter success or

failure outcomes. In this regard, change programs are more likely to maintain an expectancy of success when causes are attributed to effort rather than ability. In essence, the alterations in cognitive expectancy of success could be explained as due to the manipulation of affective responses to failure.

Rewards for successful or desirable behavior have been shown by research to decrease intrinsic (internal) motivation for learning something that the student wanted to learn before the rewards for learning were introduced (Deci, 1975). After rewards for learning were introduced, the subjects soon lost interest and abandoned the activity, whereas subjects with no reward maintained interest. Subjects came to see rewards as the cause for their activity and that someone else was controlling their activity. This may have profound implications regarding the trend that students project causes of behavior to external sources (Deci, 1975).

Deci (1975) theorizes that internal (intrinsic) motivation can be changed by changing the students feelings or perceptions of competence and self determination. Verbal feedback in terms of praise has differential effects on girls and boys; it appears to reinforce competence in males, but destroys feelings of competence in females. This negative impact on females has been attributed to the socialization process and a higher degree of control experienced by females. Verbal feedback has a controlling factor and an informing factor; the controlling factor of reward fosters a

shift in perceived locus of causality to external. Individuals perceive that their behavior is caused or controlled by others. Avoidance of punishment for poor performance is also viewed in the same light. Males tend to view rewards or verbal praise as information about their level of competence and self determination (Deci, 1975). This is closely related to DeCharms (1976) research that encourages students to think of themselves as "origins" of their own behavior, or to think that they were "pawns" of someone else. Students who were taught to feel maximum personal autonomy, made significant gains over conventional methods of teaching goal setting in academic achievement. The DeCharms (1972) study of origin and pawns, showed that personal causation training had positive effects on motivation. In order to behave like an origin, one must have help to set realistic goals, to be able to know one's own strengths and weaknesses, to determine concrete action that one can act upon in order to reach his/her goals and to set a criterion that can be recognized by the individual that he/she is approaching his/her goals.

A study by Wolk and DuCette (1974) of efficient scanning strategies, found that internally oriented individuals are perceptually more sensitive in both intentional and incidental learning than externally oriented individuals. They were more alert to typographical errors, content, dates and names; this alertness was attributed to greater attentiveness and better organization. Significant gains were made by externally oriented individuals when they were instructed to look

for certain clues. Apparently external individuals do not make full use of their attentional system until stimuli are made important to them.

The study or Arlin and Whitley (1978) dealt with the acceptance of responsibility for academic success and failure in tasks whereby students perceive that they have some control in managing their own instructions. Students who have chosen their own tasks may experience more dissonance in blaming failure on external sources. Students who have some control in managing their own instruction, tend to accept responsiblity for academic success or failure. It was also found in this study that attitudes in encouraging self management by teachers, followed by successful experience in self management by students tend to increase internal control. Failure in self management may decrease internality, but may also provide a sensitive barometer of the opportunities for self management. This research points up the need for the development of an academic locus of control or causation in classroom settings to develop personal responsibility for success or failure of students.

Dwek and Reppucci (1973) found that Miller and Seligman's (1973) learned helplessness could be engendered among children when they experience prolonged, unavoidable failures. However, children who persist despite failure are more apt to attribute outcomes to effort than to ability. Dwek (1975) experimented with a process of causal re-attribution as an attempt to produce persistence that was associated with the

tendency to attribute cause for outcomes to effort. Dwek (1975) trained her helpless children to perceive internal characteristics as being responsible for their failures. Capitalizing on the element of hope or belief in the possibility of change, which ascribes failure as due to lack of effort rather than ability, one can extend the challenge to change. Significant gains were reported with helpless children, when trained with procedures to encourage personal responsibility and increased effort on unpleasant tasks.

The study of Maehr and Fyans (1979), found that assigning causal attributions serve as a guide to task preference and affects achievement. Students who attribute success to factors of ability, tend to avoid tasks attributed to effort, task difficulty or luck. Tasks are chosen on the basis of the student belief as reasons for success, thus indicating the importance of the causal role of ability as opposed to effort, task difficulty or luck. Tasks that are chosen with the predicted outcome attributed to chance or luck do not enhance competence, whereas, tasks that require competence do enhance attributions to ability. This suggests an underlying motivational syndrome that either fosters or inhibits school achievement.

A recent study of Sarason and Sarason (1981) used modeling and role playing to strengthen cognitive and social skills of high school students with high dropout and delinquency rates. As a result of participation in the program, students were able to think of more and better alternatives

to problems and situations. Students handled job interviews better, and, in regard to school behaviors, there was a decrease in frequency of absences, tardiness and behavioral referrals. These behaviors appeared to be maintained a year after participation. The study suggests that training in social and cognitive skills have a pay off value for adolescents. The data suggests a potential for generalization to programs in preventing maladaptive behavior, programs which are appropriate for a classroom setting.

The above research endeavors have indicated success in altering perceptions of causal attributions from an external to an internal locus of causation, and imply that various techniques can be readily adapted and taught or used in a classroom setting. This concept can be used to teach specific skills as well as to develop attitudes of internal control.

Attribution training through selected activities that reflect cognitive and affective domains, may have important implications for teaching responsibility concepts to students in the school setting, concepts which could transfer to peer group settings.

CHAPTER III

METHOD

Introduction

This chapter provides detailed information regarding subjects, procedures, and materials. It also includes sections on the instrumentation and data analyses.

Research sources report that the eighth grade is the critical period for maximum identification with peer values which contributes to the development of a social self concept (Erikson, 1968). Identification with peers provides a point of reference for behavior that is emerging with heterosexual friendship choices (Broderick & Fowler, 1961). Piaget (1972) suggests that children become more conforming and rule conscious around sixth grade and conformity increases in degree until about eighth grade. At about this time, the adolescent goes through a credibility crisis in response to their disillusionment with the adult world. This disillusionment tends to give credence to conformity to peer group values and activities (Kohlberg, 1964). For this reason, eighth-grade level students were chosen for this research.

Subjects

Permission was requested of the administration of the

Guthrie Public School system to allow its eighth grade pupils to participate in the research. Permission to test and participate in the research experiment was also requested of the parents of eighth grade students and was required in order to be eligible to participate in this research project.

To select subjects for participation in the research, the Affective-Causal Attribution Checklist (ACAC, Franke, 1982) and the Causal Attribution Scale-Revised (CAS-R, Bull & Feuquay, 1980) was administered as a pre test to all eligible eighth grade students in order to determine those students who had high scores in categories of external causal attribution (task difficulty and luck). An important factor considered in this selection process was an agreement of high external scores between the ACAC and the CAS-R (for both dimensions of Influence and Frequency). This criteria was required in order to ensure the correlation between cognitive and affective responses of causal attributions.

The ACAC had an overall sample Mean of 16.09, a Standard Deviation of +3.02, and a Standard Error of Measurement of .53; from which was derived a cutoff score of 19.64 for inclusion in the research. The CAS-R had criteria cutoff scores for external attributions of both Influence and Frequency. The overall sample Mean score for Influence was 63.39, with a Standard Deviation of +11.52, a Standard Error of Measurement of +2.03, and a derived cutoff score of 76.94. The overall sample Mean score for Frequency was 65.27, with a

Standard Deviation of 10.29, a Standard Error of Measurement of +1.82, and a derived cutoff score of 77.38.

In order to meet the above criteria of agreement between the two measures, the subjects selected had external scores that were less than the desired derived cutoff scores of the Mean, plus 1 Standard Deviation, plus the Standard Error of Measurement, but were as close to the desired cut-off scores as possible. Therefore, all subjects included in this study did not necessarily have the highest external scores on either instrument, but they were included because of the need for close agreement between the two instruments. Consequently, 69 percent of the subjects' scores was at or above the mean but below the derived cutoff scores. The remaining 31 percent of the subjects' scores were above the derived cutoff scores.

Since the CAS-R was not normed on eighth-grade students, the tests were read to the groups to assure understanding and to compensate for variance in reading ability of the students taking the test.

From the group of students who had high external scores on the two external causal attribution categories of task difficulty and luck, the three research groups were formed. There were 223 students in the eighth grade, with the average age being 14. There were 104 boys and 119 girls enrolled, and of these students, 63 boys and 84 girls returned permission to test slips and were included in the pre test. From the pre test groups, 33 students were chosen on the basis of high external attribution scores of the two

measures, and were then randomly assigned to control, placebo, or experimental groups.

Students were enrolled in regular class placement which contained mainstreamed students, composed of three percent of learning disabled students and six percent of gifted and talented students. Educable and trainable mentally retarded students were not included in the study. The remainder of the students were in the normal to gifted range of intellective functioning. The age range of students was 13 to 15. The research sample included a ratio of 90:10, non-minority to minority students, and a ratio of 69:31 of urban to rural students, with 16 males and 17 females who represented a rough estimate of socioeconomic strata, based upon occupation of the general population of an urban-rural community in central Oklahoma, with a population of 10,000.

Procedures

To determine the effects of the cognitive-affective change program, research was conducted using three groups of students: a control group, a placebo group, and an experimental group. The treatment was conducted on a weekly basis for a six-week period, for a 55-minute period each week, beginning October 7, 1981. Past research has used a six-week period of time as an acceptable length of time to determine a noticeable change (Crandall, Kathowsky, & Crandall, 1965; Lefcourt, 1976). In addition, in order to cooperate with school administrators to minimize inferference in the learning process, the cognitive affective

program was limited to a six-week period of time.

The control group continued with regular class attendance, while the experimental and placebo groups participated in a six-week treatment program of varied activities, for a 55-minute period once each week. In order to meet the requirements of attendance of the school administrators, the hour was varied each week to assure that students missed no more than one hour of a given class for the six-week duration.

The three groups involved in the study are described briefly as follows (see detailed procedures of activities for each group, Appendix B; see Figure I for an outline of activities):

Control Group--The subjects of this group maintained regular class attendance and were not aware that they had been chosen to participate until the post test was administered.

Placebo Group--The subjects participated each week in a program of identifying the parts of speech (nouns, pronouns, verbs, adverbs, adjectives, and prepositions) that are found in recordings of six popular songs. Also, diagramming of several of the sentences of the songs was included at the end of each session. Recordings of popular songs were played as motivators to learn the parts of speech of the songs. The students received printed copies of the songs to identify and mark the part of speech presented each week, with separate sheets to use for diagramming sentences. Through the use of an overhead projector and transparencies of the songs,

CONTROL GROUP	PLACEBO GROUP	EXPERIMENTAL GROUP
PRE TEST	PRE TEST Music of popular songs was played as a motivator to learn the parts of speech of the songs. Each week a different part of speech was identified and marked on a song sheet, and corrected at the end of the period.	PRE TEST The following activities provide experience with both cognitive and affective activities to develop responsible decision-making skills through group process techniques.
*	*	*
Regular class attendance	Nouns - Students marked all the nouns on the song sheet while they listened to the music. Corrections were made by the examiner on an overhead projector while the music was played again (instructions and examples are included). Diagram three sentences.	Hollow Square Excercise (35 min.) decision making within a group Cognitive Domain Responsibility (20 min.) owning behavior Affective Domain
*	*	*
Regular class attendance	Pronouns (above format).	Group Goals (30 min.) identifying clear and unclear goals Cognitive Domain Figuring Out What You Want (25 min.) overcoming feelings of powerlessness, anger, passive resistance Affective Domain
*	*	*
Regular class attendance	Verbs (above format).	One Way Message (5 min.) no mutual influence Body Language (5 min.) demonstrating how the body communicates messages Murder Mystery Exercise (25 min.) problem solving Cognitive Domain. Asking For What You Want (20 min.) making choices Affective Domain
*	*	*
Regular class attendance	Adverbs (above format).	Stranded In the Desert (30 min.) dealing with conflicts in problem-solving groups Cognitive Domain (Appendix C) Victims and Villains (15 min.) give up being a victim Mind Reading (10 min.) over-adapting or over-reacting Affective Domain
*	*	*
Regular class attendance	Adjectives (above format).	Dominance/Submission (5 min.) who gives in, who dominates Cognitive Domain. Discounting & Accepting Strokes (15 min.) give up personal power and accept positive feedback Regaining Personal Power (20 min.) reclaiming your power Rescue Game (15 min.) people can't help themselves, discounting others Affective Domain
*	*	*
Regular class attendance	Prepositions (above format).	Inclusion - Control - Affection (10 min.) openness Trust-Building Behavior (10 min.) openness in sharing Expressing Support (10 min.) support is communicated to others Stopping the Rescue Game (15 min.) asking for what you want, solving your own problems
POST TEST	POST TEST	POST TEST

Appendix B - Details of each exercise.
*Research activities at one-week intervals.

Figure 1. Research Activities

corrections of the parts of speech were made as part of each weekly session.

Experimental Group--Activities pursued in the experimental conditions provided experiences with both cognitive and affective behaviors that are required in making decision as an individual in order to participate more effectively within a group.

Cognitive activities involved objectives that dealt with recall or recognition of knowledge, and the development of abilities and skills in making responsible decisions. Activities included making a decision within a group, identifying goals, a problem-solving exercise, dealing with conflicts within a group in solving problems, analyzing relationships within a group, and building trust and support within a group (see Figure 1).

Affective Activities involved objectives that described a change in feelings that are related to cognitive objectives of making responsible decisions in terms of interests, attitudes, and values. Activities were designed to develop an awareness of individual responsibility in owning behavior, overcoming feelings of powerlessness, making choices, confronting reactions, and developing a sense of personal power to solve problems (see Figure 1).

In this change program, students were provided structured guidance for the process of making decisions and for activities to acknowledge the feelings associated with making decisions as an individual in order to participate more

effectively within a group. As a result, the students who participated in this change program should be able to assert their own thoughts and opinions and have greater resistance to coercive pressure to conform to others.

Upon completion of the study, a post test of the CAS-R and the ACAC was administered to determine whether differences in scores between the three groups were significant at the .05 level of confidence.

Materials

Pre Test. All of the students tested in each eighth-grade class received a copy of the two scales (ACAC, Franke, 1982; CAS-R, Bull & Feuquay, 1980) as a pre test to select students for the experiment. Written and verbal instructions accompanied each test. Approximate testing time was 45 minutes. (For copies of test forms, see Appendix A.)

Control Group. No materials were needed other than test forms for the pre and post tests.

Placebo Group. The examiner used a cassette recorder, with tapes of six popular songs and printed copies of the words, which were distributed to the students. An overhead projector, screen, plus transparencies with the words of the songs printed on them were also used. The examiner used colored marking pens and the subjects used pencils to mark the part of speech identified each week. An introduction to the part of speech, followed by examples, opened each

session. Copies of the six songs were distributed, and the part of speech was identified by color code while the recording was played. Upon completion of each song, the examiner used the overhead projector to identify and correct the responses of the subjects. This format was also followed in diagramming sentences (see Appendix B).

Experimental Group. Materials included instruction sheets for each group, rating sheets, materials for exercises, and verbal instructions for each activity for each week (see Appendix B).

Post Test. All three groups, control, placebo, and experimental, received a copy of the ACAC and the CAS-R with verbal and written instructions (see Appendix A).

Instrumentation

The Affective Causal Attribution Checklist (Franke, 1982) was developed in order to measure the affective responses that are associated with the four categories of causal attribution according to Weiner (1980). Affective attributions influence the way we feel about ourselves as well as others, affect serves to motivate behavior, and affect functions as a cue to mediate subsequent actions.

There are 36 items on the ACAC that elicit either an internal or external affective causal response. The items were generated from typical adolescent school or social

social situations in relationships with peers (McCandless & Coop, 1979; Grinder, 1978).

There are 12 affective attributes to choose from in order to respond to the 36 statements of the ACAC. Items are scored and totaled according to internal (ability or effort attributes) or external (task difficulty or luck attributes) responses, and then individuals are categorized accordingly, based upon mean scores and standard deviations.

Preliminary research of the ACAC was conducted in the Sapulpa Public School System, Sapulpa, Oklahoma, using 30 eighth-grade students.

The ACAC scale was found to possess moderate to high content validity; only those items which consistently elicited either an internal (ability, effort) response or an external response, were included. The ACAC has high internal consistency for combined internal items, as indicated by a Kuder Richardson item analysis, which yielded a reliability coefficient of .91. Kuder Richardson item analysis yielded reliability coefficients of .81 to ability, and .52 to effort. A moderate internal consistency for combined external items was found, as indicated by a Kuder Richardson item analysis, which yielded a reliability coefficient of .57. Kuder Richardson item analysis yielded reliability coefficients of .73 to task difficulty, and .49 to luck. The test appears to measure some characteristic of the sample tested, since individual items produced similar patterns of responding in different people.

Subjects were chosen to participate in this experiment on the basis of agreement between the two measures (ACAC and CAS-R) of high scores of external causal attribution. Post scores on these two measures were used to determine change in mean scores at the .05 level of confidence. (See Appendix A for copies of the CAS-R and ACAC.)

The ACAC yields scores for the following attributions:

The ACAC yields attribution scores in Success to Ability (TlSUA).

The ACAC yields attribution scores in Failure to Ability (TlFA).

The ACAC yields attribution scores in School to Abilty (TlSCA).

The ACAC yields attribution scores in Social to Ability (TlSOA).

The ACAC yields attribution scores in Success to Effort (TlSUE).

The ACAC yields attribution scores in Failure to Effort (TlFE).

The ACAC yields attribution scores in School to Effort (TlSCE).

The ACAC yields attribution scores in Social to Effort (TlSOE).

The ACAC yields attribution scores in Success to Task Difficulty (TlSUTD).

The ACAC yields attribution scores in Failure to Task Difficulty (TlFTD).

The ACAC yields attribution scores in School to Task Difficulty (TlSCTD).

The ACAC yields attribution scores in Social to Task Difficulty (TlSOTD).

The ACAC yields attribution scores in Success to Luck (TlSUL).

The ACAC yields attribution scores in Failure to Luck (TlFL).

The ACAC yields attribution scores in School to Luck (TlSCL).

The ACAC yields attribution scores in Social to Luck (TlSOL).

The Causal Attribution Scale-Revised (Bull & Feuquay, 1980) was developed in response to the need for an appropriate standardized research instrument that minimizes deficiencies of previous scales and eliminates statistical problems inherent in a forced-choice, ipsative format of the first version of this scale.

The revised scale was developed to eliminate statistical problems associated with the forced-choice, ipsative format in reference to (a) certainty of attributional categories referenced, (b) control of effects of social desirability, (c) efforts to control for intra-individual consistency across situations, and (d) research of statistical use of ipsative measures to control for social desirability (Bull & Feuquay, 1980).

The present scale simulates the pairing of item stems

across conditions of success and failure in school and social situations. To retain control of social acceptability, likert-like items were paired with detailed instructions to the subjects.

Standardization of the revised scale examines differences in attributions related to the situation in which they were made (school, social), the performance outcome to which they referred (success, failure), discrepancies in single occurrence events or multiple occurrence events (influence, frequency), and the importance of each attributional category utilized (ability, effort, task difficulty, luck). Scores on this scale were examined in relationship to the individual's reported ACT score, grade point average, and preferred class assignments; significant correlations were found for each variable. The revised scale was administered to 87 undergraduate students in education at Oklahoma State University, Stillwater, Oklahoma (Bull & Feuquay, 1980).

The scale possesses high content validity, including only items that are consistently linked as belonging to specific attribution categories. The distribution of items with total agreement in success and failure situations include: in success situations - 15 items to ability, 17 items to effort, 12 items to luck, and 11 items to task difficulty; in failure situations - 12 items to ability, 10 items to effort, 9 items to luck, and 9 items to task difficulty. The scale is internally consistent within those categories. Frequency and influence have been documented by

preliminary research as being different indicators of the ways that attributions are used. Additional research is being conducted in terms of concurrent and construct validity that is needed to increase confidence in predicting behavior based on both frequency and influence of causal attributions.

Scores obtained in this scale were compared with those obtained on an alternative causal attribution measure. Significant, low, positive, correlations, ranging from .22 to .25 were found between the alternative scale and influence on individuals' reported ability, effort, task difficulty, and luck scores. These relationships were found for situations of success.

The CAS-R yields the following scores for attributions:

The CAS-R yields attribution scores in Influence-School-Success to Ability (T2SCSIA).

The CAS-R yields attribution scores in Frequency-School-Success to Ability (T2SCSFA).

The CAS-R yields attribution scores in Influence-School-Failure to Ability (T2SCFIA).

The CAS-R yields attribution scores in Frequency-School-Failure to Ability (T2SFFA).

The CAS-R yields attribution scores in Influence-Social-Success to Ability (T2SOSIA).

The CAS-R yields attribution scores in Frequency-Social-Success to Ability (T2SOSFA).

The CAS-R yields attribution scores in Influence-Social-Failure to Ability (T2SOFIA).

The CAS-R yields attribution scores in Frequency-Social-Failure to Ability (T2SOFFA).

The CAS-R yields attribution scores in Influence-School-Success to Effort (T2SCSIE).

The CAS-R yields attribution scores in Frequency-School-Success to Effort (T2SCSFE).

The CAS-R yields attribution scores in Influence-School-Failure to Effort (T2SCSFIE).

The CAS-R yields attribution scores in Frequency-School-Failure to Effort (T2SCFIE).

The CAS-R yields attribution scores in Influence-Social-Success to Effort (T2SOSIE).

The CAS-R yields attribution scores in Frequency-Social-Success to Effort (T2SOSFE).

The CAS-R yields attribution scores in Influence-Social-Failure to Effort (T2SOFIE).

The CAS-R yields attribution scores in Frequency-Social-Failure to Effort (T2SOFFE).

The CAS-R yields attribution scores in Influence-School-Success to Task Difficulty (T2SCSITD).

The CAS-R yields attribution scores in Frequency-School-Success to Task Difficulty (T2SCSFTD).

The CAS-R yields attribution scores in Influence-School-Failure to Task Difficulty (T2SCFTD).

The CAS-R yields attribution scores in Frequency-School-Failure to Task Difficulty (T2SCFFTD).

The CAS-R yields attribution scores in Influence-Social-Success to Task Difficulty (T2SOSTD).

The CAS-R yields attribution scores in Frequency-Social-Success to Task Difficulty (T2SOSFTD).

The CAS-R yields attribution scores in Influence-Social-Failure to Task Difficulty (T2SOFITD).

The CAS-R yields attribution scores in Frequency-Social-Failure to Task Difficulty (T2SOFFTD).

The CAS-R yields attribution scores in Influence-School-Success to Luck (T2SCSIL).

The CAS-R yields attribution scores in Frequency-School-Success to Luck (T2SCSFL).

The CAS-R yields attribution scores in Influence-School-Failure to Luck (T2SFIL).

The CAS-R yields attribution scores in Frequency-School-Failure to Luck (T2SCFFL).

The CAS-R yields attribution scores in Influence-Social-Success to Luck (T2SOSIL).

The CAS-R yields attribution scores in Frequency-Social-Success to Luck (T2SOSFL).

The CAS-R yields attribution scores in Influence-Social-Failure to Luck (T2SOFIL).

The CAS-R yields attribution scores in Frequency-Social-Failure to Luck (T2SOFFL).

Data Analysis

Students rated themselves on the four attributional factors of ability, effort, task difficulty, and luck in terms of success and failure in school and social situations as ascribed to affect on the ACAC. Influence and frequency were measured by the CAS-R, in terms of success and failure performance in school and social situations on the four attributional factors of ability, effort, task difficulty, and luck. These two measures serve as the pre and post measures of the dependent variables. The four research hypotheses were investigated using a series of two-way (split-plot factorial) analyses of variance (Kirk, 1968). Each dependent variable was submitted to the split-plot procedure. The between-subjects factor, treatment, had three levels: a control group, placebo group, and experimental group. The within subjects factors consisted of the two testing periods, pre and post. Follow-up procedures included examination of simple main effects, followed by post hoc analysis using the Scheffe' method of comparisons, as recommended by Kirk (1968).

The split-plot factorial design was chosen for the following reasons:

1. Heterogeneity of variance may obscure actual treatment effects due to regression toward the mean of extreme scores.
2. The split-plot factorial design using repeated

measures permit the use of a considerably smaller sample of subjects without a loss of power.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

This chapter includes a report of the results of this research as they relate to the stated four hypothesies. The results are reported separately for each of the four hypotheses for each dependent variable.

Attributions to ability, effort, task difficulty and luck were analyzed on the two instruments of the various dependent variables. A series of two-way (split-plot factorial) analysis of variance (Kirk, 1968), using repeated measures, were used to test differences between subjects of the three groups (control, placebo, experimental) across pre to post testing period.

Results

The results of each dependent variable were analyzed for each of the four hypotheses.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test and post test) and treatment conditions.

Alternative Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Success to

Ability, Table I of the ACAC, was analyzed and no interaction of the time interval and treatment conditions was found, therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Success to Ability, Table I of the ACAC, was analyzed and no difference was found betwen pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Success to Ability, Table I of the ACAC, was analyzed and no significant differences were found among the three groups on the pre test, therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Success to Ability, Table I of the ACAC, was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent varible, attributions of Failure to Ability, Table II of the ACAC, was analyzed and no interaction of the time interval and treatment conditions was found. Therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypthesis$_1$.

Specific Hypotheses:

Null Hypotheses$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Failure to Ability, Table II of the ACAC, was analyzed and Scheffe' comparisons performed, and no difference was found between pre and post test scores of the three treatment groups. Therefore,

TABLE I

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SUCCESS TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	.0909	2	.0455	.003	0.99
Error	369.27	30	12.30		
Test	3.87	1	3.87	.62	0.43
Test X Group	12.93	2	6.46	1.03	0.36
Error	188.18	30	6.27		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.90	7.37	8.27	8.91	7.59	8.14
G_2	7.90	8.39	7.18	7.67	7.54	8.03
G_3	7.09	7.49	7.90	8.52	7.50	8.00
Total	7.30	7.75	7.78	8.36	7.54	8.05

TABLE II

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF FAILURE TO ABILITY; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISON

Analysis of Variance

Source	SS	DF	MS	F	P
Group	17.84	2	8.92	.91	0.41
Error	293.09	30	9.76		
Test	8.72	1	8.72	3.84	0.05*
Test X Group	6.09	2	3.04	1.34	0.27
Error	68.18	30	2.27		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.45	4.18	3.54	4.21	3.50	4.19
G_2	1.81	2.55	3.36	3.93	2.59	3.24
G_3	3.54	4.55	4.09	4.76	3.81	4.18
Total	2.93	3.76	3.66	4.30	3.30	3.87

Scheffe' Comparisons

Pre-Post

G_2 1.55 - G_1 .09 = 1.46
G_2 1.55 - G_3 .55 = 1.00
G_3 .55 - G_1 .09 = .46

*1.64 @ .05

Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Failure to Ability, Table II of the ACAC, was analyzed and no significant differences were found on the pre test. Therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treament groups on the post test.

Alternate Hypothesis4: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Failure to Ability (Table II) of the ACAC), was analyzed and no significant differences found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of School to Ability (Table III of the ACAC), was analyzed and no interaction of the time interval and treatment conditions was found. Therefore, Null Hypothesis$_1$ was not rejected and no

TABLE III

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SCHOOL TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	27.36	2	13.68	2.40	0.10
Error	170.90	30	5.69		
Test	11.04	1	11.04	3.43	0.07
Test X Group	1.90	2	.95	.29	0.74
Error	96.54	30	3.21		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	5.09	5.45	5.81	5.96	5.45	5.70
G_2	4.72	4.97	6.00	6.32	5.36	5.64
G_3	6.54	6.82	7.00	7.35	6.77	7.08
Total	5.45	5.74	6.27	6.54	5.86	6.14

support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of School to Ability (Table III, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of School to Ability (Table III, ACAC), was analyzed and no differences were found among the three groups on the pre test, therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of School to Ability (Table III, ACAC), was analyzed,

and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Social to Ability (Table IV, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Social to Ability (Table IV, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences

TABLE IV

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SOCIAL TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	13.30	2	6.65	1.70	0.19
Error	117.18	30	3.90		
Test	4.37	1	4.37	1.11	0.29
Test X Group	4.21	2	2.10	.53	.59
Error	117.90	30	3.93		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	5.27	5.57	6.00	6.35	5.63	5.96
G_2	4.90	5.25	4.72	4.93	4.81	5.09
G_3	4.09	4.31	5.09	5.45	4.59	4.88
Total	4.75	5.04	5.27	5.57	5.01	5.31

between the three groups on the pre test.

The dependent variable, attributions of Social to Ability (Table IV, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Social to Ability (Table IV, ACAC), was analyzed and no significant differences were found among the three treatment groups on the posttest. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Success to Ability (Table V, CAS-R), was analyzed and no interaction of the time interval and treament conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three

TABLE V

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-SUCCESS TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	8.45	2	4.22	.59	0.56
Error	214.63	30	7.15		
Test	0.06	1	0.06	.01	0.92
Test X Group	.39	2	.19	.03	0.96
Error	187.54	30	6.25		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	10.27	9.51	10.18	10.28	10.22	9.89
G_2	9.27	9.56	9.54	9.93	9.40	9.74
G_3	9.54	9.65	9.54	9.80	9.54	9.72
Total	9.69	9.57	9.75	10.00	9.75	9.78

treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Success to Ability (Table V, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Success to Ability (Table V, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Success to Ability (Table V, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the

post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Success to Ability (Table VI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Success to Ability (Table VI, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the

TABLE VI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-SUCCESS TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	1.84	2	.92	.17	0.84
Error	167.18	30	5.57		
Test	9.46	1	9.46	3.05	0.09
Test X Group	.03	2	.01	0.00	0.99
Error	93.00	30	3.10		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.36	6.88	10.09	7.24	9.72	7.06
G_2	9.09	9.32	9.90	10.11	9.50	9.71
G_3	9.54	9.61	10.27	10.40	9.90	10.00
Total	9.33	8.60	10.09	9.25	9.70	8.92

three groups on the pre test.

The dependent variable, attributions of Frequency-School-Success to Ability (Table VI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Success to Ability (Table VI, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Failure to Ability (Table VII, CAS-R) was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

TABLE VII

ANALYSIS OF VARIANCE, TEST II CAS-R FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-FAILURE TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	4.21	2	2.10	.31	0.73
Error	201.72	30	6.72		
Test	.54	1	.54	.09	0.76
Test X Group	8.27	2	4.13	.71	0.50
Error	175.18	30	5.83		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.36	10.00	7.09	8.42	6.72	9.21
G_2	7.72	8.21	6.90	7.34	7.31	7.77
G_3	6.54	6.84	7.18	7.44	6.86	7.14
Total	6.87	8.35	7.06	7.73	6.96	8.04

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Failure to Ability (Table VII, CAS-R), and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Failure to Ability (Table VII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of

Influence-School-Failure to Ability (Table VII, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Failure to Ability (Table VIII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypothesis:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Failure to Ability (Table VIII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was

TABLE VIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-FAILURE TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	3.90	2	1.95	.31	0.73
Error	187.18	30	6.23		
Test	1.83	1	1.83	.45	0.50
Test X Group	6.39	2	3.19	.78	0.46
Error	122.27	30	4.07		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.90	5.87	7.18	7.67	7.54	6.77
G_2	7.36	7.66	6.54	6.83	6.95	7.24
G_3	6.90	7.23	7.45	7.72	7.18	7.47
Total	7.39	6.92	7.06	7.40	7.22	7.16

not rejected and no support was found for Alternate Hypothesis$_2$:.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Failure to Ability (Table VIII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Failure to Ability (Table VIII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore; Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Success to Ability (Table IX, CAS-R), was analyzed and no interaction of the time interval and treatment

TABLE IX

ANALYSIS OF VARIANCE, TEST II CAS-R FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-SUCCESS TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	26.75	2	13.37	1.41	0.25
Error	284.00	30	9.46		
Test	.01	1	.01	0.00	0.96
Test X Group	20.57	2	10.28	1.69	0.20
Error	182.90	30	6.09		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.54	9.66	8.00	10.14	8.77	9.90
G_2	7.72	8.22	8.63	9.07	8.18	8.64
G_3	9.36	9.51	10.09	10.06	9.72	9.78
Total	8.87	9.13	8.90	9.75	8.89	9.44

conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-Social-Success to Ability (Table IX, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Success to Ability (Table IX, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Success to Ability (Table IX, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Success to Ability (Table X, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-Social-Success to Ability (Table X, CAS-R), was analyzed and no difference was found between pre and post test scores of the three

TABLE X

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-SUCCESS TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	1.30	2	.65	.09	0.91
Error	213.63	30	7.12		
Test	7.33	1	7.33	2.25	0.14
Test X Group	.03	2	.01	0.00	0.99
Error	97.63	30	3.25		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.81	8.14	9.54	7.47	9.18	7.80
G_2	8.90	9.06	9.54	9.57	9.22	9.31
G_3	9.18	9.38	9.81	10.06	9.50	9.72
Total	8.96	8.86	9.63	9.03	9.30	8.94

treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Success to Ability (Table X, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Success to Ability (Table X, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Failure to Ability (Table XI, Test CAS-R), was

TABLE XI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-FAILURE TO ABILITY, MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	3.27	2	1.63	.19	0.83
Error	265.18	30	8.83		
Test	33.46	1	33.46	5.17	0.03*
Test X Group	7.75	2	3.87	.60	0.55
Error	194.27	30	6.47		

*$p < .05$

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	5.36	9.20	7.27	9.67	6.31	9.43
G_2	6.63	7.20	7.09	7.61	6.86	7.40
G_3	5.63	6.00	7.54	8.04	6.59	7.02
Total	5.87	7.46	7.30	8.44	6.58	7.95

Scheffe' Comparisons

Pre-Post

G_3 -.73 - G_2 (.09) = -.82
G_3 -.73 - G_1 (.55) = -1.37
G_1 .64 - G_2 .09 = .55

*2.20 @ .05

analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-Social-Failure to Ability (Table XI, CAS-R), was analyzed and Scheffe' comparisons performed, and no difference was found betwen pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Failure to Ability (Table XI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis3 was not rejected.

Null Hypothesis$_4$: There are no differences

among the three treatment groups on the post test.

Alternate Hypothesis4: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Failure to Ability (Table XI, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Failure to Ability (Table XII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions were found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental conditions.

The dependent variable, attributions of

TABLE XII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-FAILURE TO ABILITY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	.57	2	.28	.05	0.95
Error	175.54	30	5.85		
Test	21.87	1	21.87	3.02	0.09
Test X Group	.75	2	.37	.05	0.94
Error	217.36	30	7.24		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.63	7.47	8.09	8.42	7.36	7.94
G_2	6.63	6.88	7.63	7.79	7.13	7.33
G_3	6.73	7.15	7.72	7.97	7.22	7.56
Total	6.66	7.16	7.81	8.06	7.23	7.61

Frequency-Social-Failure to Ability (Table XII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Failure to Ability (Table XII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Failure to Ability (Table XII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the

time interval and the treatment conditions.

The dependent variable, attributions of Success to Effort (Table XIII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Success to Effort (Table XIII, ACAC), was analyzed and no difference was found between pre and post test score of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Success to Effort (Table XIII, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences

TABLE XIII

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SUCCESS TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	.63	2	.31	.07	0.92
Error	129.72	30	4.32		
Test	7.33	1	7.33	2.93	0.09
Test X Group	1.48	2	.74	.30	0.74
Error	75.18	30	2.50		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	2.54	2.88	2.81	3.07	2.68	2.97
G_2	2.00	2.85	3.00	3.27	2.50	3.06
G_3	2.09	2.42	2.81	3.93	2.45	3.17
Total	2.21	2.71	2.87	3.42	2.54	3.06

between the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Success to Effort (Table XIII, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypthesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Failure to Effort (Table XIV, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable attributions of Failure to Effort (Table XIV, ACAC), was analyzed

TABLE XIV

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF FAILURE TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	1.48	2	.74	.12	0.88
Error	184.45	30	6.14		
Test	.74	1	.74	.33	0.56
Test X Group	11.12	2	5.56	2.50	0.09
Error	66.63	30	2.22		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.45	3.75	3.54	4.64	3.50	4.19
G_2	4.00	4.41	3.27	3.63	3.63	4.02
G_3	2.63	2.96	3.90	4.36	3.27	3.66
Total	3.36	3.70	3.57	4.21	3.46	3.95

and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Failure to Effort (Table XIV, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Failure to Effort (Table XIV, ACAC), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of School to Effort (Table XV, ACAC), was analyzed and no interaction

TABLE XV

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SCHOOL TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	4.03	2	2.01	.49	0.61
Error	123.90	30	4.13		
Test	.06	1	.06	.04	0.84
Test X Group	2.93	2	1.46	.90	0.41
Error	49.00	30	1.63		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.27	3.75	3.63	4.64	3.45	4.19
G_2	3.81	4.16	3.18	3.43	3.50	3.79
G_3	2.90	2.84	3.00	3.33	2.95	3.08
Total	3.33	3.58	3.27	3.80	3.30	3.68

of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of School to Effort (Table XV, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of School to Effort (Table XV, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of School to Effort (Table XV, ACAC), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Social to Effort (Table XVI, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Social to Effort (Table XVI, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no

TABLE XVI

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SOCIAL TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	15.36	2	7.68	1.87	0.17
Error	123.00	30	4.10		
Test	1.83	1	1.83	.55	0.46
Test X Group	2.03	2	1.01	.30	0.74
Error	100.63	30	3.35		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	2.72	3.64	2.72	4.05	2.72	3.84
G_2	2.27	2.53	3.09	3.60	2.68	3.06
G_3	3.63	3.02	3.81	4.29	3.72	3.65
Total	2.87	3.06	3.21	3.98	3.04	3.51

support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Social to Effort (Table XVI, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Social to Effort (Table XVI, ACAC), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Success to Effort (Table XVII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

TABLE XVII

ANALYSIS OF VARIANCE, TEST II CAS-R FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-SUCCESS TO EFFORT; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	8.81	2	4.40	.52	0.59
Error	252.00	30	8.40		
Test	40.96	1	40.96	8.33	0.007*
Test X Group	10.39	2	5.19	1.06	0.36
Error	147.63	30	4.92		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.90	3.20	9.18	3.00	9.54	3.10
G_2	10.00	10.47	7.36	7.50	8.68	8.98
G_3	10.00	10.12	8.63	8.82	9.31	9.47
Total	9.96	7.93	8.39	6.44	9.17	7.18

Scheffe' Comparisons

Pre-Post

G_2 2.64 - G_1 .72 = 1.92
G_2 2.64 - G_3 1.37 = 1.27
G_3 1.37 - G_1 .72 = .65

*2.24 @ .05

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Success to Effort (Table XVII, ACAC), was analyzed and Scheffe' comparisons performed, and no differences were found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Success to Effort (Table XVII, ACAC), was analyzed and no differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of

Influence-School-Success to Effort (Table XVII, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Success to Effort (Table XVIII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Success to Effort (Table XVIII, CAS-R), was analyzed and Scheffe' comparisons performed, and no differences were found between pre and post test scores of the three treatment groups.

TABLE XVIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-SUCCESS TO EFFORT; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	2.93	2	1.46	.20	0.82
Error	221.72	30	7.39		
Test	52.74	1	52.74	12.49	0.001*
Test X Group	5.12	2	2.56	.61	0.55
Error	126.63	30	4.22		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	10.00	10.22	8.90	9.57	9.45	9.89
G_2	10.18	10.52	7.72	7.84	8.95	9.18
G_3	10.00	10.38	8.81	8.36	9.09	9.37
Total	10.06	10.37	8.27	8.59	9.16	9.48

Scheffe' Comparisons

Pre-Post

G_2 2.46 - G_1 1.10 = 1.36
G_2 2.46 - G_3 1.82 = .64
G_3 1.82 - G_1 1.10 = .72

*2.10 @ .05

Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Success to Effort (Table XVIII, CAS-R), was analyzed and there were no significant differences among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment gruops on the post test.

The dependent variable, attributions of Frequency-School-Success to Effort (Table XVIII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Failure to Effort (Table XIX, CAS-R), was analyzed

TABLE XIX

ANALYSIS OF VARIANCE, TEST II CAS-R FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-FAILURE TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	18.27	2	9.13	.81	0.45
Error	336.81	30	11.22		
Test	.24	1	.24	.07	0.79
Test X Group	13.12	2	6.56	1.85	0.17
Error	106.63	20	3.55		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.45	10.17	8.45	9.12	7.95	9.64
G_2	7.09	7.23	6.90	7.40	7.00	7.31
G_3	8.81	9.01	7.63	7.78	8.22	8.39
Total	7.78	8.80	7.66	8.10	7.72	8.44

and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Failure to Effort (Table XIX, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Failure to Effort (Table XIX, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Failure to Effort (Table XIX, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Failure to Effort (Table XX, CAS-R), was analyzed and no interaction of time interval treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothehesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Failure to Effort (Table XX,

TABLE XX

ANALYSIS OF VARIANCE, TEST II CAS-R FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-FAILURE TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	13.57	2	6.78	1.99	0.15
Error	102.45	30	3.41		
Test	.24	1	.24	.07	0.79
Test X Group	2.30	2	1.15	0.32	0.72
Error	108.45	30	3.61		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.90	8.08	8.09	8.86	8.00	8.47
G_2	7.00	7.10	7.54	7.66	7.27	7.38
G_3	8.54	8.55	8.18	8.45	8.36	8.50
Total	7.81	7.91	7.93	8.32	7.87	8.11

CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis2.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Failure to Effort (Table XX, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Failure to Effort (Table XX, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Success to Effort (Table XXI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions were found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attribution of Influence-Social-Success to Effort (Table XXI, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Success to Effort (Table XXI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

TABLE XXI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-SUCCESS TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	11.48	2	5.74	0.74	0.48
Error	233.54	30	7.78		
Test	3.40	1	3.40	0.61	0.44
Test X Group	25.18	2	12.59	2.25	0.12
Error	167.90	30	5.59		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.09	8.27	9.27	8.22	8.18	8.24
G_2	7.27	7.65	7.09	7.52	7.18	7.58
G_3	7.81	8.27	7.18	7.38	7.50	7.82
Total	7.39	8.06	7.84	7.70	7.62	7.88

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Success to Effort (Table XXI, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Success to Effort (Table XXII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypthesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

TABLE XXII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-SUCCESS TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	3.39	2	1.69	0.26	0.77
Error	195.36	30	6.51		
Test	6.06	1	6.06	1.37	0.25
Test X Group	4.48	2	2.24	0.51	0.60
Error	132.45	30	4.41		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.27	7.46	8.54	9.59	7.90	8.52
G_2	7.27	7.59	7.81	8.08	7.54	7.83
G_3	7.36	7.66	7.36	7.54	7.36	7.60
Total	7.30	7.57	7.90	8.40	7.60	7.98

The dependent variable, attributions of Frequency-Social-Success to Effort (Table XXII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social Success to Effort (Table XXII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent varible, attributions of Frequency-Social-Success to Effort (Table XXII, CAS-R), was analyzed, and no significant differences were found among the three teatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Failure to Effort (Table XXIII, Test II CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-Social-Failure to Effort (Table XXIII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Failure to Effort (Table XXIII, CAS-R), was analyzed and no significant differences

TABLE XXIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-FAILURE TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	22.45	2	11.22	1.38	0.26
Error	243.90	30	8.13		
Test	0.00	1	0.00	0.00	1.00
Test X Group	5.18	2	2.59	0.41	0.66
Error	188.81	30	6.29		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.36	6.63	7.00	7.16	6.58	6.89
G_2	7.54	8.11	7.63	8.07	7.59	8.09
G_3	8.45	8.84	7.72	8.24	8.09	8.54
Total	7.45	7.86	7.45	7.82	7.42	7.84

were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Failure to Effort (Table XXIII, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Failure to Effort (Table XXIV, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and

TABLE XXIV

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-FAILURE TO EFFORT; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	8.39	2	4.19	0.54	0.59
Error	235.27	30	7.84		
Test	.06	1	.06	0.02	0.88
Test X Group	8.21	2	4.10	1.39	0.26
Error	88.72	30	2.95		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.18	7.50	8.00	8.13	7.59	7.81
G_2	7.72	8.17	6.81	6.97	7.27	7.57
G_3	8.18	8.64	8.09	8.45	8.13	8.54
Total	7.69	8.10	7.63	7.85	7.66	7.97

post test difference for the experimental condition.

The dependent variable, attributions of Frequency-Social-Failure to Effort (Table XXIV, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Failure to Effort (Table XXIV, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Failure to Effort (Table XXIV, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent varible, attributions of Success to Task Difficulty (Table XXV, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therfore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Success to Task Difficulty (Table XXV, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Success to Task Difficulty (Table XXV, ACAC), was

TABLE XXV

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SUCCESS TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	12.63	2	6.31	0.86	0.43
Error	219.63	30	7.32		
Test	11.87	1	11.87	2.47	0.12
Test X Group	4.93	2	2.46	0.51	0.60
Error	144.18	30	4.80		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.63	7.16	5.54	6.10	6.09	6.63
G_2	5.09	5.37	5.00	5.53	5.04	5.45
G_3	6.45	6.92	5.09	5.21	5.77	6.06
Total	6.06	6.48	5.21	5.61	5.63	6.04

analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Success to Task Difficulty (Table XXV, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Failure to Task Difficulty (Table XXVI, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and

TABLE XXVI

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF FAILURE TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	53.21	2	26.60	1.74	0.19
Error	459.54	30	15.31		
Test	11.87	1	11.87	1.54	0.22
Test X Group	8.12	2	4.06	0.53	0.59
Error	231.00	30	7.70		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	5.63	6.69	5.09	5.70	5.36	6.19
G_2	7.54	7.96	7.36	5.98	7.45	6.97
G_3	7.90	8.46	6.09	6.47	7.00	7.46
Total	7.03	7.70	6.18	6.05	6.60	6.87

post test difference for the experimental condition.

The dependent variable, attributions of Failure to Task Difficulty (Table XXVI, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Failure to Task Difficulty (Table XXVI, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Failure to Task Difficulty (Table XXVI, ACAC), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time

interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of School to Task Difficulty (Table XXVII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of School to Task Difficulty (Table XXVII, ACAC), was analyzed and Scheffe' comparisons performed, and a significant difference was found between G3 and G2 for pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was rejected and support was found for the Alternate Hypothesis$_2$, that there is a pre-post difference for the experimental condition. There was a significant decrease from pre to post test in attributions to task difficulty in school situations for the experimental group (G_3) over the placebo group (G_2).

TABLE XXVII

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SCHOOL TO TASK DIFFICULTY; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	2.30	2	1.15	0.13	0.87
Error	262.72	30	8.75		
Test	29.33	1	29.33	6.45	0.01*
Test X Group	18.30	2	9.15	2.01	0.15
Error	136.36	30	4.54		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	5.45	5.93	4.36	4.78	4.90	5.35
G_2	5.18	5.44	5.00	6.14	5.09	5.79
G_3	6.72	6.99	4.00	4.33	5.36	5.66
Total	5.78	6.12	4.45	5.08	5.11	5.60

Scheffe' Comparisons

Pre-Post

G_3 2.72 - G_2 .18 = 2.54*
G_3 2.72 - G_1 1.09 = 1.63
G_1 1.09 - G_2 .18 = .91

*2.29 @ .05

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable attributions of School to Task Difficulty (Table XXVII, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of School to Task Difficulty (Table XXVII, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Social to Task Difficulty (Table XXVIII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

TABLE XXVIII

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SOCIAL TO TASK DIFFICULTY; MEANS, STANDARD DEVIATIONS AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	8.84	2	4.42	1.03	0.36
Error	128.63	30	4.28		
Test	9.46	1	9.46	3.84	0.05*
Test X Group	8.12	2	4.06	1.65	0.20
Error	73.90	30	2.46		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.72	6.88	6.27	6.46	6.50	6.67
G_2	7.36	7.41	7.27	7.39	7.31	7.37
G_3	8.09	8.15	6.36	6.64	7.22	7.39
Total	7.39	7.48	6.63	6.83	7.01	7.14

Scheffe' Comparisons

Pre-Post

G_3 1.73 - G_2 .09 = 1.64*
G_3 1.73 - G_1 .45 = 1.28
G_1 .45 - G_2 .09 = .36

*1.60 @ .05

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Social to Task Difficulty (Table XXVIII, ACAC), was analyzed and Scheffe' comparisons performed, and differences were found between pre and post test scores between Group 3 and Group 2. Therefore, Null Hypothesis$_2$ was rejected and support was found for the Alternate Hypothesis$_2$, that there was a significant difference for the experimental conditions. There was a significant decrease from pre to post test in attributions to task difficulty of Group 3 (experimental) over Group 2 (placebo).

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Social to Task Difficulty (Table XXVIII, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Social to Task Difficulty (Table XXVIII, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Success to Task Difficulty (Table XXIX, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental conditions.

The dependent variable, attributions of

TABLE XXIX

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-SUCCESS TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	22.90	2	11.45	0.98	0.38
Error	351.54	30	11.71		
Test	4.37	1	4.37	2.00	0.16
Test X Group	7.39	2	3.69	1.69	0.20
Error	65.72	30	2.19		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.27	9.68	9.54	10.00	9.40	9.84
G_2	8.54	8.65	8.09	8.14	8.31	8.39
G_3	8.72	9.27	7.36	7.68	8.04	8.47
Total	8.84	9.20	8.33	8.60	8.58	8.90

Influence-School-Succes to Task Difficulty (Table XXIX, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Success to Task Difficulty (Table XXIX, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Success to Task Difficulty (Table XXIX, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Success to Task Difficulty (Table XXX, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Success to Task Difficulty (Table XXX, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Success to Task Difficulty (Table XXX, CAS-R), was analyzed and no significant

TABLE XXX

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-SUCCESS TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	29.30	2	14.65	3.09	0.06
Error	142.45	30	4.74		
Test	.37	1	.37	0.14	0.71
Test X Group	2.21	2	1.10	0.41	0.67
Error	81.90	30	2.73		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.63	9.79	10.00	10.14	9.81	9.96
G_2	8.36	8.49	8.81	8.88	8.59	8.68
G_3	8.45	8.53	8.09	8.43	8.27	8.48
Total	8.81	8.93	8.963	9.15	8.89	9.04

differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Success to Task Difficulty (Table XXX, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Failure to Task Difficulty (Table XXXI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between

TABLE XXXI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-FAILURE TO TASK DIFFICULTY MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	11.03	2	5.51	1.21	0.31
Error	136.45	30	4.54		
Test	28.01	1	28.01	10.99	0.002*
Test X Group	11.03	2	5.51	2.16	0.13
Error	76.45	30	2.54		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.63	8.90	8.36	8.46	8.50	8.68
G_2	10.18	10.28	8.81	8.97	9.50	9.62
G_3	10.09	10.16	7.81	7.94	8.95	9.05
Total	9.06	9.78	8.00	8.45	8.98	9.11

Scheffe' Comparisons

Pre-Post

G_3 2.28 - G_1 .27 = 2.01*
G_3 2.28 - G_2 1.37 = .91
G_2 1.37 - G_1 .27 = 1.10

*1.65 @ .05

pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Failure to Task Difficulty (Table XXXI, CAS-R), was analyzed and Scheffe' comparisons performed, and differences were found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was rejected and support was found for Alternate Hypothesis$_2$, that there is a significant difference for the experimental condition. There was a significant decrease from pre to post tests in attributions to task difficulty for Group 3 (experimental) over Group 1 (control).

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Failure to Task Difficulty (Table XXXI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences

among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Failure to Task Difficulty (Table XXXI, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Failure to Task Difficulty (Table XXXII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Failure to Task Difficulty (Table

TABLE XXXII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-FAILURE TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	12.03	2	6.01	1.49	0.24
Error	121.00	30	4.03		
Test	.96	1	.96	0.34	0.56
Test X Group	4.21	2	2.10	0.74	0.48
Error	84.81	30	2.82		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.72	8.84	8.00	8.16	8.36	8.50
G_2	9.18	9.35	9.63	9.87	9.40	9.61
G_3	9.09	9.12	8.63	8.70	8.86	8.91
Total	7.21	9.10	7.48	8.91	8.87	9.00

XXXII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Failure to Task Difficulty (Table XXXII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Failure to Task Difficulty (Table XXXII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Success to Task Difficulty (Table XXXIII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-Social-Success to Task Difficulty (Table XXXIII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Success to Task Difficulty (Table XXXIII, CAS-R), was analyzed and no significant

TABLE XXXIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-SUCCESS TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	1.43	2	.74	0.09	0.91
Error	261.00	30	8.70		
Test	2.96	1	2.96	0.73	0.39
Test X Group	5.30	2	2.65	0.65	0.52
Error	121.72	30	4.05		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.90	9.53	8.36	8.49	8.63	9.01
G_2	8.63	9.13	8.00	8.31	8.31	8.72
G_3	9.63	9.96	7.63	7.97	8.63	8.96
Total	9.06	9.54	8.00	8.25	8.52	8.89

differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Success to Task Difficulty (Table XXXIII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment condition.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Succes to Task Difficulty (Table XXXIV, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between

TABLE XXXIV

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-SUCCESS TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	20.84	2	10.42	1.34	0.27
Error	232.63	30	7.75		
Test	1.22	1	1.22	0.28	0.67
Test X Group	28.72	2	14.36	2.12	0.13
Error	203.54	30	6.78		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.09	8.56	8.63	8.75	8.36	8.65
G_2	7.90	8.38	8.09	8.36	8.00	8.37
G_3	8.54	8.87	6.54	6.92	7.54	7.89
Total	8.18	8.60	7.75	8.01	7.96	8.30

pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-Social Success to Task Difficulty (Table XXXIV, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_2$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Success to Task Difficulty (Table XXXIV, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Succes to Task Difficulty (Table XXXIV, CAS-R), was analyzed and no significant differences were found among the three treatment

groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Failure to Task Difficulty (Table XXXV, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-Social-Failure to Task Difficulty (Table XXXV, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

TABLE XXXV

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-FAILURE TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	1.43	2	.74	0.09	0.91
Error	261.00	30	8.70		
Test	2.96	1	2.96	0.73	0.39
Test X Group	5.30	2	2.65	0.65	0.52
Error	121.72	30	4.05		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.45	8.11	7.18	7.50	7.31	7.80
G_2	7.36	7.68	7.54	7.73	7.45	7.70
G_3	8.27	8.59	7.09	7.34	7.68	7.96
Total	7.27	8.12	7.69	7.52	7.48	7.82

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Failure to Task Difficulty (Table XXXV, CAS-R), was analyzed and no difference was found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Failure to Task Difficulty (Table XXXV, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time inteval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Failure to Task Difficulty (Table XXXVI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

TABLE XXXVI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-FAILURE TO TASK DIFFICULTY; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	20.84	2	10.42	1.34	0.27
Error	232.63	30	7.75		
Test	1.22	1	1.22	0.28	0.67
Test X Group	28.72	2	14.36	2.12	0.13
Error	203.54	30	6.78		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	6.00	6.61	8.09	8.67	7.04	7.64
G_2	7.36	7.76	6.36	6.73	6.86	7.24
G_3	8.27	8.47	8.00	8.31	8.13	8.39
Total	7.21	7.61	7.48	7.90	7.34	7.75

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-Social-Failure to Task Difficulty (Table XXXVI, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent varible, attributions of Frequency-Social-Failure to Task Difficulty (Table XXXVI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of

Frequency-Social-Failure to Task Difficulty (Table XXXVI, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is no interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Success to Luck (Table XXXVII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Success to Luck (Table XXXVII, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support

TABLE XXXVII

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SUCCESS TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	7.48	2	3.74	0.88	0.42
Error	127.00	30	4.23		
Test	.13	1	.13	0.08	0.77
Test X Group	7.36	2	3.68	2.17	0.13
Error	51.00	30	1.70		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.45	4.14	2.72	3.09	3.09	3.61
G_2	2.54	1.81	2.63	2.89	2.59	2.85
G_3	1.81	2.46	2.72	3.32	2.27	2.89
Total	2.60	3.13	2.69	3.10	2.65	3.11

was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Success to Luck (Table XXXVII, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: Threre are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Success to Luck (Table XXXVII, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Failure to Luck (Table XXXVIII, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

TABLE XXXVIII

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF FAILURE TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	11.12	2	5.56	0.69	0.50
Error	241.63	30	8.05		
Test	5.46	1	5.46	1.32	0.26
Test X Group	5.48	2	2.74	0.66	0.52
Error	124.54	30	4.14		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.36	3.64	3.36	3.93	3.36	3.78
G_2	4.54	5.51	4.18	5.01	4.36	5.26
G_3	4.63	5.02	3.27	3.75	3.95	2.92
Total	4.18	4.72	3.60	4.23	3.89	3.98

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Failure to Luck (Table XXXVIII, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Failure to Luck (Table XXXVIII, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable attributions of Failure to Luck (Table XXXVIII, ACAC), was analyzed and no significant differences were found among

the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of School to Luck (Table XXXIX, ACAC), was analyzed and no interaction of the interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypohtesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of School to Luck (Table XXXIX, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

TABLE XXXIX

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SCHOOL TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	4.72	2	2.36	0.56	0.57
Error	126.72	30	4.22		
Test	2.96	1	2.96	0.76	0.39
Test X Group	1.93	2	.96	0.25	0.78
Error	117.09	30	3.90		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.63	4.00	3.45	3.77	3.54	3.88
G_2	4.09	4.44	3.90	4.42	4.00	4.43
G_3	4.63	4.33	3.72	4.12	4.18	4.22
Total	4.12	4.25	3.69	4.10	3.90	4.17

The dependent variable, attributions of School to Luck (Table XXXIX, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of School to Luck (Table XXXIX, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Social to Luck (Table XXXX, ACAC), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between

TABLE XXXX

ANALYSIS OF VARIANCE, TEST I ACAC, FOR ATTRIBUTIONS OF SOCIAL TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	.03	2	.01	0.000	0.99
Error	103.72	30	3.45		
Test	2.56	1	2.56	1.33	0.25
Test X Group	.39	2	.19	0.10	0.90
Error	57.54	30	2.46		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	3.18	3.64	2.63	3.05	2.90	3.34
G_2	3.00	3.38	2.81	3.19	2.90	3.28
G_3	3.09	3.07	2.63	2.86	2.86	2.96
Total	3.09	3.36	2.69	3.03	2.88	3.19

pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Social to Luck (Table XXXX, ACAC), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent varible, attributions of Social to Luck (Table XXXX, ACAC), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Social to Luck (Table XXXX, ACAC), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternative Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Success to Luck (Table XXXXI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypothesis:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Success to Luck (Table XXXXI, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Success to Luck (Table XXXXI,

TABLE XXXXI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-SUCCESS TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	20.57	2	10.28	1.60	0.21
Error	193.09	30	6.43		
Test	5.46	1	5.46	1.05	0.31
Test X Group	.03	2	.01	0.00	0.99
Error	156.00	30	5.20		

*$p < .05$

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.54	8.80	8.00	8.12	8.27	8.46
G_2	8.45	8.60	7.90	8.20	8.18	8.40
G_3	7.36	7.89	6.72	7.19	7.04	7.54
Total	8.12	8.43	7.54	7.83	7.83	8.13

CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Success to Luck (Table XXXXI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Success to Luck (Table XXXXI, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the

time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Success to Luck (Table XXXXII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Success to Luck (Table XXXXII, CAS-R), was analyzed and no significant differences were found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Success to Luck (Table XXXXII, CAS-R), was analyzed and Scheffe' comparisons performed, and significant differences were found among the three groups on the pre test; therefore,

TABLE XXXXII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-SUCCESS TO LUCK; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	26.54	2	13.27	3.10	0.05*
Error	128.45	30	4.28		
Test	.37	1	.37	0.09	0.76
Test X Group	6.30	2	3.15	0.73	0.48
Error	128.81	30	4.29		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.54	8.72	8.63	8.83	8.59	8.77
G_2	9.72	9.75	8.72	8.83	9.22	9.29
G_3	7.45	7.86	7.90	8.14	7.68	8.00
Total	8.57	8.77	8.42	8.60	8.49	8.68

Scheffe' Comparisons

Pre Test	Post Test
G_2 9.72 - G_3 7.45 = 2.27*	G_2 8.72 - G3 7.90 = .82
G_2 9.72 - G_1 8.54 = 1.18	G_2 8.72 - G1 8.63 = .09
G_1 8.54 - G_3 7.45 = 1.09	G_1 8.63 - G3 7.90 = .73

*1.60 @ .05

Null Hypothesis$_3$ was rejected. Mean scores for Group 2 (placebo) were significantly higher than Group 3 (experimental) on the pre test.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Success to Luck (Table XXXXII, CAS-R), was analyzed and Scheffe' comparisons performed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$. The significant differences between G_3 and G_2 on the pre test were not maintained on the post test.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-School-Failure to Luck (Table XXXXIII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

TABLE XXXXIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SCHOOL-FAILURE TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	2.93	2	1.46	0.25	0.78
Error	176.09	30	5.86		
Test	.06	1	.06	0.01	0.92
Test X Group	21.84	2	10.92	1.65	0.20
Error	198.09	30	6.60		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	7.45	7.90	8.54	8.84	8.00	8.37
G_2	8.90	9.18	7.36	7.48	8.13	8.33
G_3	8.18	8.37	8.81	9.28	8.50	8.83
Total	8.18	8.48	8.24	8.53	8.21	8.50

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Influence-School-Failure to Luck (Table XXXXIII, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-School-Failure to Luck (Table XXXXIII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-School-Failure to Luck (Table XXXXIII,

CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-School-Failure to Luck (Table XXXXIV, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-School-Failure to Luck (Table XXXXIV, CAS-R), was analyzed and no difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

TABLE XXXXIV

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SCHOOL-FAILURE TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	2.54	2	1.27	0.18	0.83
Error	207.45	30	6.91		
Test	3.87	1	3.87	0.77	0.38
Test X Group	7.39	2	3.69	0.74	0.48
Error	150.72	30	5.02		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.00	8.37	8.54	8.98	8.27	8.67
G_2	7.27	7.49	8.54	8.71	7.90	8.10
G_3	8.00	8.25	7.63	7.96	7.81	8.10
Total	7.75	8.03	8.24	8.55	7.99	8.29

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-School-Failure to Luck (Table XXXXIV, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-School-Failure to Luck (Table XXXXIV, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Success to Luck (Table XXXXV, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not

TABLE XXXXV

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-SUCCESS TO LUCK; MEANS, STANDARD DEVIATIONS, AND SCHEFFE' COMPARISONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	52.75	2	26.37	3.47	0.04*
Error	228.00	30	7.60		
Test	8.72	1	8.72	2.22	0.14
Test X Group	8.45	2	4.22	1.08	0.35
Error	117.81	30	3.92		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.72	10.09	8.00	8.15	8.86	9.12
G_2	7.27	7.53	6.90	7.17	7.90	7.35
G_3	6.90	7.38	6.81	7.12	6.86	7.25
Total	7.96	8.33	7.24	7.48	7.60	7.90

Scheffe' Comparisons

Pre Test	Post Test
G_1 9.72 - G_3 6.90 = 2.82*	G_1 8.00 - G_3 6.81 = 1.19
G_1 9.72 - G_2 7.27 = 2.45*	G_1 8.00 - G_2 6.90 = 1.10
G_2 7.27 - G_3 6.90 = .37	G_2 6.90 - G_3 6.81 = .09

*2.13 @ .05

rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attribution of Influence-Social-Success to Luck (Table XXXXV, CAS-R), was analyzed and no significant difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Success to Luck (Table XXXXV, CAS-R), was analyzed and Scheffe' comparison performed, and significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was rejected. Both Group 3 (experimental) and Group 2 (placebo) were significantly less than Group 1 on the pre test.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Success to Luck (Table XXXXV, CAS-R), was analyzed and Scheffe' comparisons performed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$. The differences found for G_3 and G_2 (less than G_1) on the pre test were not maintained on the post test. The control group mean score decreased on the post test but not to a significant degree.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Success to Luck (Table XXXXVI, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and

TABLE XXXXVI

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-SUCCESS TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	6.63	2	3.31	0.48	0.62
Error	206.72	30	6.89		
Test	3.40	1	3.40	0.61	0.63
Test X Group	5.18	2	2.59	0.47	0.63
Error	166.90	30	5.56		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	9.00	9.49	7.90	8.18	8.45	8.83
G_2	8.27	8.43	7.72	7.89	8.00	8.16
G_3	7.54	7.78	7.81	8.32	7.68	8.05
Total	8.27	8.56	7.81	8.13	8.04	8.34

post test difference for the experimental condition.

The dependent variable, attribution of Frequency-Social-Success to Luck (Table XXXXVI, CAS-R), was analyzed and no significant differences were found between pre and post test scores of the three treatment group. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Success to Luck (Table XXXXVI, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, the Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Success to Luck (Table XXXXVI, CAS-R), was analyzed, and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Influence-Social-Failure to Luck (Table XXXXVII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attribution of Influence-Social-Failure to Luck (Table XXXXVII, CAS-R), was analyzed and no significant difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Influence-Social-Failure to Luck (Table XXXXVII,

TABLE XXXXVII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF INFLUENCE-SOCIAL-FAILURE TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	4.93	2	2.46	0.20	0.81
Error	362.81	30	12.09		
Test	.24	1	.24	.05	0.82
Test X Group	1.48	2	.74	0.16	0.85
Error	138.27	30	4.60		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.72	9.41	8.81	9.32	8.77	9.36
G_2	8.09	8.49	8.18	8.45	8.13	8.47
G_3	8.54	8.77	8.00	8.32	8.27	8.54
Total	8.45	8.89	8.33	8.69	8.39	8.79

CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Influence-Social-Failure to Luck (Table XXXXVII, CAS-R), was analyzed and no significant differences were found among the three treatment groups on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

Null Hypothesis$_1$: There is no interaction of the time interval (pre test, post test) and treatment conditions.

Alternate Hypothesis$_1$: There is an interaction of the time interval and the treatment conditions.

The dependent variable, attributions of Frequency-Social-Failure to Luck (Table XXXXVIII, CAS-R), was analyzed and no interaction of the time interval and treatment conditions was found; therefore, Null Hypothesis$_1$ was not rejected and no support was found for Alternate Hypothesis$_1$.

Specific Hypotheses:

Null Hypothesis$_2$: For each of the three treatment groups, there is no difference between

TABLE XXXXVIII

ANALYSIS OF VARIANCE, TEST II CAS-R, FOR ATTRIBUTIONS OF FREQUENCY-SOCIAL-FAILURE TO LUCK; MEANS AND STANDARD DEVIATIONS

Analysis of Variance

Source	SS	DF	MS	F	P
Group	16.45	2	8.22	0.92	0.40
Error	267.54	30	8.91		
Test	18.56	1	18.56	3.01	0.09
Test X Group	12.93	2	6.46	1.05	0.36
Error	185.00	30	6.16		

*p < .05

Means and Standard Deviations

	Pre		Post		Total	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
G_1	8.09	8.74	9.90	10.12	9.00	9.43
G_2	7.90	8.46	7.72	8.04	7.81	8.25
G_3	7.90	8.06	9.45	9.75	8.68	8.90
Total	7.96	8.42	9.03	9.30	8.49	8.86

pre and post test scores.

Alternate Hypothesis$_2$: There is a pre and post test difference for the experimental condition.

The dependent variable, attributions of Frequency-Social-Failure to Luck (Table XXXXVIII, CAS-R), was analyzed and no significant difference was found between pre and post test scores of the three treatment groups. Therefore, Null Hypothesis$_2$ was not rejected and no support was found for Alternate Hypothesis$_2$.

Null Hypothesis$_3$: There are no differences among the three groups on the pre test.

The dependent variable, attributions of Frequency-Social-Failure to Luck (Table XXXXVIII, CAS-R), was analyzed and no significant differences were found among the three groups on the pre test; therefore, Null Hypothesis$_3$ was not rejected.

Null Hypothesis$_4$: There are no differences among the three treatment groups on the post test.

Alternate Hypothesis$_4$: There are differences among the three treatment groups on the post test.

The dependent variable, attributions of Frequency-Social-Failure to Luck (Table XXXXVIII, CAS-R), was analyzed, and no significant differences were found among the three treatment groups

on the post test. Therefore, Null Hypothesis$_4$ was not rejected and no support was found for Alternate Hypothesis$_4$.

CHAPTER V

SUMMARY AND CONCLUSIONS

Introduction

This chapter presents a summary of the present investigation, a discussion of the findings, conclusions and recommendations for future research. Limitations of this research are also discussed.

Summary of the Research

This study examined the effects of a cognitive-affective change program on students attributions to internal (ability, effort) causation or external (task difficulty, luck) causation in success or failure performance conditions, in school and social situations. This research is based upon Wiener's (1971; 1972; Weiner & Freize, 1974) attribution model to explain achievement behavior that is based upon beliefs regarding causes of success and failure that appear to mediate between perceptions of the task and the final performance. This research also incorporates Weiner's (1980) research regarding the role of affect as the link between causal beliefs and feelings.

Thirty-three subjects were selected for partcipation

in the research program from the eighth-grade class of an urban-rural community of central Oklahoma. Selection of students was based upon high external scores of at least 1 SD above the mean on the ACAC and the CAS-R. The selected 33 subjects were randomly assigned to one of three treatment conditions, control, placebo, or experimental treatment groups. Subjects in the control group continued their normal routine of class attendance. Subjects in the placebo group participated in a 6-week academic program of learning and diagramming the parts of speech of popular recorded music for a 55-minute period each week. The experimental group participated in a 6-week (55-minute period each week) cognitive-affective change program that focuses upon behaviors that are required to make a decisions and participate more effectively within a group. Upon completion of the program, all three groups were retested on the instruments, (ACAC and CAS-R), to determine differences in performance from pre to post test.

Hypotheses were stated as follows. Null Hypothesis$_1$ stated that there is no interaction of the time interval (pre test, post test) and treatment conditions of the three groups. An Alternative Hypothesis$_1$ stated that there is an interaction of time interval (pre test, post test) and treatment conditions of the three groups.

Three specific hypotheses were offered. Null Hypothesis$_2$ stated that for each of the treatment groups, there is no difference between pre and post test scores. An

Alternative Hypothesis$_2$ stated that there is a pre-post difference for the experimental condition. Null Hypothesis$_3$ stated that there are no differences among the three treatment groups on the pre test. Null Hypothesis$_4$ stated that there are no differences among the three treatment groups on the post test. Alternative Hypothesis$_4$ states that there are differences among the three treatment groups on the post test.

Each dependent variable of the two measures (ACAC and CAS-R) was analyzed using a two-way (split-plot factorial) analysis of variance (Kirk, 1968), using repeated measures, to test differences between subjects of the three groups (control, placebo, experimental) across pre to post testing period.

Under Null Hypothesis$_1$, no interactions were found for all dependent variables of the two measures; therefore, Null Hypothesis$_1$ was not rejected and no support was found for the Alternate Hypothesis$_1$. Results indicate that no differences exist between the treatment groups as a result of having participated in this study.

Under Null Hypothesis$_2$, analysis revealed significant difference between pre and post test scores of the three groups on three dependent variables [Table XXVII - School to Task Difficulty (ACAC); Table XXVIII - Social to Task Difficulty (ACAC); and Table XXXI - Influence-School-Failure to Task Difficulty (CAS-R)]. In all three instances, there was a significant decrease in attributions to task difficulty

(external) for the experimental group (G_3) over the placebo group (G_2) and the control group (G_1). Their result was in the predicted direction and is supportive of past research.

There were four other dependent variables which indicated significance on the Anova tables; however, Scheffe' comparisons revealed no significant differences between pre and post test scores of the three groups on these variables [Tables II - Failure to Ability (ACAC); Table XI - Influence-Social-Failure to Ability (CAS-R); Table XVII - Influence-School-Success to Effort (CAS-R); and Table XVIII - Frequency-School-Success to Effort (CAS-R)].

Under Null Hypothesis$_3$, which states that there were no differences among the three groups on the pre test, significant differences were found on the pre test for two dependent variables [Table XXXXII - Frequency-School-Success to Luck (CAS-R) and Table XXXXV - Influence-Social-Success to Luck (CAS-R)]. These differences were found for Group 1 (control) and Group 2 (placebo). Finding two of 48 dependent variables to be significantly different on the pre test, does not substantiate initial disparity between groups.

Under Null Hypothesis$_4$, which states that there were no differences among the three groups on the post test, significant differences were not found, nor were the differences on the pre test of the above two dependent variables maintained.

Conclusions

The above findings provide no support for the cognitive-affective change program in that the number of significant differences found, could be expected to happen by chance. To determine whether the instruments used were reliable, pre-post Pearson r correlation coefficients were computed for external attributions of task difficulty and luck. Attribution to task difficulty yielded reliabilities of .2436 (CAS-R - Influence), +.1590 (CAS-R - Frequency), and .0144 (ACAC). Attributions to luck yielded reliabilities of .2257 (CAS-R - Influence), .5856 (CAS-R - Frequency) and .0072 (ACAC). There are two factors that need to be considered with reliabilities of instruments used in this research. First, homogeneity of the group involved may diminish the reliability coefficient because of a truncated range. Second, the prediction was to have a decrease in external attributions as a result of participation in the change program. The results of the research has shown a decrease to a significant degree on three dependent variables, and a numerical difference on several others that were not significant. Reviewing the raw scores, inspection indicated there were numerical decreases from pre to post test, on all but attribution to luck on the CAS-R - Frequency (.5856). Where diminished post test scores occurred, lower reliablity coefficients were obtained.

In addition, Kuder Richardson coefficients were computed to provide an index of interitem consistency of the

attribution categories of the ACAC for the three groups. Low to moderate coefficients were found (see Table XXXXIX). The formula is applicable to tests whose items are scored as either right or wrong, or some equivalent all or none system (Anastasi, 1976). This formula was not appropriate for the format of the CAS-R; therefore, this analysis was not performed for the CAS-R. One difficulty with the ACAC was that subjects were not restricted to a particular set of responses of an attribution category for each sentence stimulus. To enhance the reliability of this instrument, a forced-choice format could be easily adapted to assure consistency in responding. Additional items would also enhance the reliability.

The process used to select subjects for this study should also be examined. Those chosen for participation in this study were chosen on the basis of agreement between the two instruments on high external scores. However, some subjects had high external scores on one instrument but not the other, and vice versa; therefore, they were not included in the study. This factor also had an effect on the sample size. In order to meet the criteria of agreement between the two instruments, subjects were chosen whose scores were very close to the mean, rather than the desired full standard deviation, plus standard error above the mean. These subjects were borderline internal-external prior to the study; therefore, change in post test scores would not be expected to be dramatically different from the pre test

scores. The above condition raised questions relating to the validity of the two instruments used, particularly the ACAC.

Preliminary examination of the pre tests of the ACAC and CAS-R on the 147 students revealed very low correlations. This could be attributed to the fact that they were unrelated or that they were related in a nonlinear fashion (Bruning & Kintz, 1977). To determine whether the instruments were related in a nonlinear fashion, correlation ratios (eta) were performed. The results indicate the degree of relationship between the variables of task difficulty and luck (external attributions) of the two instruments and provide an estimate of concurrent validity. Attributions to task difficulty yield correlation ratios (eta) of .8857 (ACAC/CAS-R - Influence) and .9167 (ACAC/CAS-R - Frequency); attributions to luck yield correlation ratios (eta) of .8690 (ACAC/CAS-R - Influence) and .9084 (ACAC/CAS-R - Frequency). The results suggest high concurrent validity for the two instruments.

Since the instruments used appear to be valid, then perhaps addressing the problem of format of the ACAC would eliminate problems in the selection of subjects for future research.

Inadequate time for discussion may have been another reason that change was not noted. To facilitate change, discussion of each activity is critical in group dynamics in order for change to occur. This researcher believes that

each activity was included in order to elicit a particular response to produce the desired outcome. However, in order to include all of the planned activities, discussion time was cut short. This factor could have hindered the internalization of values inherent in each activity. If the sessions were extended from a 6-week period to a 9-week period, adequate time for discussion would be assured.

In regard to the issue of including affective activities and whether it makes a difference in changing attributions from external to internal, this inclusion's efficacy cannot statistically be determined from this study. Two of the three dependent variables that were significant were affective variables, but overall, this could have occurred by chance.

This researcher observed behavior that would support the inclusion of affective as well as cognitive activities. These reponses of the students to those activities were very favorable. The students appeared to become much more assertive as time progressed, and appeared to be unwilling to be coerced by the group.

Recommendations

For future research, the following suggestions are made:

1. Change the format of the ACAC to enhance the reliability of responses to the four attribution categories and eliminate problems in

selection of subjects.

2. Increase the number of items of the ACAC to enhance the reliability of the instrument.
3. Increase the sample size to diminish the effects of error variance and increase the power of the design.
4. Increase the number of sessions from a 6-week period to a 9-week period to provide adequate discussion time for the activities.

Other populations in which the cognitive-affective change program could be effective in bringing about change would be those with alcohol or drug related problems. Those involved in drug or alcohol use beyond social or experimentation levels, typically project responsibility for behavior to others or to situations. They become dependent upon significant others to rescue them from the consequences of their own behavior. Family and friends are drawn into the problem for various reasons, and may respond in ways that maintain the problem. Usually this takes the form of overprotection for the user or for other members of the family. This results in continued dependency on drugs or alcohol, as well as upon significant others. This serves to maintain the problem and supports an external orientation. In conclusion, the cognitive-affective change program would be used to teach coping skills to individuals of this population to effect change in attributions toward an internal orientation.

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APPENDICES

APPENDIX A

AFFECTIVE CAUSAL ATRIBUTION CHECKLIST

CAUSAL ATTRIBUTION SCALE-REVISED

ACA CHECKLIST

FOR THE FOLLOWING STATEMENTS, CHOOSE ONE OF THE WORDS THAT DESCRIBES YOUR FEELINGS IN THAT SITUATION, BY WRITING THE NUMBER OF THAT WORD ON THE LINE BESIDE EACH STATEMENT.

1. CONFIDENT	7. SATISFIED
2. SURPIRSED	8. COMPETENT
3. OBLIGED	9. GRATEFUL
4. DISMAYED	10. INCOMPETENT
5. PROUD	11. GUILTY
6. ANGRY	12. THANKFUL

1. When the teacher compliments my paper that I worked hard on, I feel ___
2. If someone makes a higher grade than I do on my favorite subject, I feel ___
3. When I succeed in making friends, I feel ___
4. When a test is easy and I don't try to do well, I feel ___
5. Having several close friends to share ups and downs with makes me feel ___
6. If I make a higher grade than the "brain" in class, I feel ___
7. When the best looking (boy/girl) in school invited me to a party rather than my best friend who likes (him/her) I feel ___
8. When someone I like receives a scholarship, I feel ___
9. If my best friend chooses someone else to be on his/her team, I feel ___
10. Being teased by certain people makes me feel ___
11. Some friends have invited me but not my best friend to a party and (he/she) wants to go, I feel ___
12. When my ideas for the class project are accepted by the group, I feel ___
13. When I do poorly on a math exam I feel ___
14. When people who are "cool" nominate me for office I feel ___

FOR THE FOLLOWING STATEMENTS, CHOOSE ONE OF THE WORDS THAT DESCRIBES YOUR FEELINGS IN THAT SITUATION, BY WRITING THE NUMBER OF THAT WORD ON THE LINE BESIDE EACH STATEMENT.

---

1. CONFIDENT	7. SATISFIED
2. SURPIRSED	8. COMPETENT
3. OBLIGED	9. GRATEFUL
4. DISMAYED	10. INCOMPETENT
5. PROUD	11. GUILTY
6. ANGRY	12. THANKFUL

---

15. Two of my friends cheated on a test, and when I told the teacher, I felt ___

16. When my grade average goes up, but not enough to please my parents, I feel ___

17. When our team was tied for first place and I goofed on the playoff, I felt ___

18. Proving that I can do things on my own makes me feel ___

19. When a test is really tough and I fail, I feel ___

20. Some (guy/girl) always seems to be chosen by the teacher for special privileges, and it makes me feel ___

21. When someone in our group stands up to authority, I feel ___

22. When my friends vote for me for a school office, I feel ___

23. When I give the wrong answer in class, I feel ___

24. When a test is really hard and I do well, I feel ___

25. The (guys/girls) who have the best looks seem to be chosen as leaders, and it makes me feel ___

26. If I could please both my parents and my friends at the same time, I would feel ___

27. When the guys on the football team vote for me, I feel ___

28. I want to buy gifts for three of my friends and only have enough money for two of them, I feel ___

29. When my grade average drops suddenly I feel ___

FOR THE FOLLOWING STATEMENTS, CHOOSE ONE OF THE WORDS THAT DESCRIBES YOUR FEELINGS IN THAT SITUATION, BY WRITING THE NUMBER OF THAT WORD ON THE LINE BESIDE EACH STATEMENT.

1.	CONFIDENT	7.	SATISFIED
2.	SURPIRSED	8.	COMPETENT
3.	OBLIGED	9.	GRATEFUL
4.	DISMAYED	10.	INCOMPETENT
5.	PROUD	11.	GUILTY
6.	ANGRY	12.	THANKFUL

---

30. When my friends say they like my taste in clothes the best, I feel ___

31. If I score below the rest of the class on a test, I feel ___

32. When my ideas are rejected by the group, I feel ___

33. When the most popular (boys/girls) do not include me in plans, I feel ___

34. When a test is easy and I fail, I feel ___

35. When I am not sure of the material, but do well on a test, I feel ___

36. My friends want me to go to a party with the "in group" but my parents disapprove, and I feel ___

EXAMINER: The words below may be used as alternate meanings if students need clarification

1.	Confident	-	certain, assured
2.	Surprise	-	amazed
3.	Obliged	-	grateful
4.	Dismayed	-	disturbed, perplexed
5.	Proud	-	masterful, arrogant
6.	Angry	-	irate, perturbed
7.	Satisfied	-	content, gratified
8.	Competent	-	able, adept
9.	Grateful	-	obliged
10.	Incompetent	-	ineffective
11.	Guilty	-	responsible, blameworthy
12.	Thankful	-	grateful

Source: Merrian-Webster thesaurus (1978).

Instruction and Revised Instrument

The purpose of this questionnaire is to determine how you feel about yourself in different situations. This is not a graded test, but we do need for you to put your name, age, and sex on the answer sheet. Please answer all questions as honestly as you can.

On each of the following pages are two situations. Each of the situations is followed by pairs of possible reason for the situations occurring.

Consider each pair of reasons separately and for each reason in the pair, indicate both the amount of influence and the frequency that that reason normally would have in your life.

FOR EXAMPLE

Reasons

I really strained at it.
I am good at it.

	Influence						Frequency					
	Not a reason		Minor reason		Major reason			Never		Some times		Always
1.	A	B	C	D	E	3.	A	B	C	D	E	
2.	A	B	C	D	E	4.	A	B	C	D	E	

For this pair you would read both reasons and determine how much influence each would have on you. You would code your response in blocks 1 and 2 of the answer sheet.

You would then determine how frequently each of those reason influenced you. This you would code in the next two answer spaces 3 and 4.

Then you would move on to the next pair of reasons.

Student Name _____ Age _____

Grade _____ Sex: M F

BULL-FEUQUAY CAUSAL ATTRIBUTION SCALE REVISED
SELF REPORT: SCHOOL FORM

Situation: When I am SUCCESSFUL IN SCHOOL, it is because:

Reasons		Influence					Frequency				
		Not a reason		Minor reason		Major reason	Never		Some times		Always
I really strained at it	1.	A	B	C	D	E	3. A	B	C	D	E
I am good at it	2.	A	B	C	D	E	4. A	B	C	D	E
		Not a reason		Minor reason		Major reason	Never		Some times		Always
I used a lot of energy	5.	A	B	C	D	E	7. A	B	C	D	E
The problems were few	6.	A	B	C	D	E	8. A	B	C	D	E
		Not a reason		Minor reason		Major reason	Never		Some times		Always
I was lucky	9.	A	B	C	D	E	11. A	B	C	D	E
I really strained at it	10.	A	B	C	D	E	12. A	B	C	D	E
		Not a reason		Minor reason		Major reason	Never		Some times		Always
The problems were few	13.	A	B	C	D	E	15. A	B	C	D	E
I have a talent in that area	14.	A	B	C	D	E	16. A	B	C	D	E
		Not a reason		Minor reason		Major reason	Never		Some times		Always
I was fortunate	17.	A	B	C	D	E	19. A	B	C	D	E
The problems were few	18.	A	B	C	D	E	20. A	B	C	D	E
		Not a reason		Minor reason		Major reason	Never		Some times		Always
I am clever	21.	A	B	C	D	E	23. A	B	C	D	E
I was fortunate	22.	A	B	C	D	E	24. A	B	C	D	E

Situation: When I am UNSUCCESSFUL IN SCHOOL, it is because:

Reasons		Influence			Frequency		
		Not a reason	Minor reason	Major reason	Never	Some times	Always
I was not as careful as usual	1.	A B	C D	E	3. A B	C D	E
It was a hard task	2.	A B	C D	E	4. A B	C D	E
		Not a reason	Minor reason	Major reason	Never	Some times	Always
I didn't try very hard	5.	A B	C D	E	7. A B	C D	E
I am not trained in that area	6.	A B	C D	E	8. A B	C D	E
		Not a reason	Minor reason	Major reason	Never	Some times	Always
I didn't labor with it	9.	A B	C D	E	11. A B	C D	E
I didn't have the opportunities	10.	A B	C D	E	12. A B	C D	E
		Not a reason	Minor reason	Major reason	Never	Some times	Always
I am not masterful when it comes to that	13.	A B	C D	E	15. A B	C D	E
	14.	A B	C D	E	16. A B	C D	E
What was required was very difficulty		Not a reason	Minor reason	Major reason	Never	Some times	Always
The functions were extreme	17.	A B	C D	E	19. A B	C D	E
Things were unfavorable	18.	A B	C D	E	20. A B	C D	E
		Not a reason	Minor reason	Major reason	Never	Some times	Always
I don't have the aptitude for it	21.	A B	C D	E	23. A B	C D	E
I didn't have the opportunities	22.	A B	C D	E	24. A B	C D	E

BULL-FEUQUAY CAUSAL ATTRIBUTION SCALE REVISED
SELF REPORT: SOCIAL FORM

Situation: When I am SUCCESSFUL in a SOCIAL SITUATION, it is because:

Reasons		Influence					Frequency					
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I really strained at it	1.	A	B	C	D	E	3.	A	B	C	D	E
I am good at it	2.	A	B	C	D	E	4.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I used a lot of energy	5.	A	B	C	D	E	7.	A	B	C	D	E
The problems were few	6.	A	B	C	D	E	8.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I was lucky	9.	A	B	C	D	E	11.	A	B	C	D	E
I really strained at it	10.	A	B	C	D	E	12.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
The problems were few	13.	A	B	C	D	E	15.	A	B	C	D	E
I have a talent in that area	14.	A	B	C	D	E	16.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I was fortunate	17.	A	B	C	D	E	19.	A	B	C	D	E
The problems were few	18.	A	B	C	D	E	20.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I am clever	21.	A	B	C	D	E	23.	A	B	C	D	E
I was fortunate	22.	A	B	C	D	E	24.	A	B	C	D	E

Situation: When I am UNSUCCESSFUL in a SOCIAL SITUATION, it is because:

Reasons		Influence					Frequency					
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I was not as careful as usual	1.	A	B	C	D	E	3.	A	B	C	D	E
It was a hard task	2.	A	B	C	D	E	4.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I didn't try very hard	5.	A	B	C	D	E	7.	A	B	C	D	E
I am not trained in that area	6.	A	B	C	D	E	8.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I didn't labor with it	9.	A	B	C	D	E	11.	A	B	C	D	E
I didn't have the opportunities	10.	A	B	C	D	E	12.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I am not masterful when it comes to that	13.	A	B	C	D	E	15.	A	B	C	D	E
	14.	A	B	C	D	E	16.	A	B	C	D	E
What was required was very difficulty		Not a reason		Minor reason		Major reason		Never		Some times		Always
The functions were extreme	17.	A	B	C	D	E	19.	A	B	C	D	E
Things were unfavorable	18.	A	B	C	D	E	20.	A	B	C	D	E
		Not a reason		Minor reason		Major reason		Never		Some times		Always
I don't have the aptitude for it	21.	A	B	C	D	E	23.	A	B	C	D	E
I didn't have the opportunities	22.	A	B	C	D	E	24.	A	B	C	D	E

APPENDIX B

RESEARCH ACTIVITIES

PLACEBO GROUP

Introduction

Please write your name at the top of the first page. On each sheet, there are copies of words of popular songs. Each week, we will identify and mark with a crayon the part of speech covered for that week. After the song has finished playing, we will correct your work using the overhead and we listen to the song played again and then diagram three sentences. The song sheets will be taken up at the end of the period. Each of the following parts of speech will be covered each week: nouns, pronouns, verb, adverbs, adjectives, and prepositions.

Weekly Activities

Week 1: Nouns

A noun is the name of person, place or thing.

Example: person - George Washington
place - United States
thing - school

"Now, I will turn on the recorder and play the first song, as you hear the words, mark the nouns that you find in the song. We will mark the nouns on each page of songs, taking time for corrections in between each song. (These instructions will be repeated each week, with the correct part of speech inserted.)

Week 2: Pronouns

Pronouns take the place of nouns and may be in the form of first, second or third person, such as:

Example: 1st person - I, we, my, mine, our, me, us
2nd person - You, your
3rd person - He, she, it, his, her, its, him, they, their, them, all

They may be used in a relative sense such as:

Example: whoever, whatever, this, that

They may be used to mean one and the same thing such as:

Example: "you will hurt yourself"

"Now mark the pronouns in the song."

Week 3: Verbs

Verbs are used to express action or being in a sentence, and are used to show number, person, voice mood, and tense.

Examples: number - singular: is, was
plural : are, were
person - I talk, I spoke, I have spoken, I
tense am speaking
voice mood - Sit down! Please listen!

Verbs may express present, past or future tense
Verbs may express mood of a statement, command or subjunctive such as "If I were you"
Verbs may express active or passive voice, such as
"The girl opened my door" Active
"The door was opened by the girl" Passive

"Now mark the verb in the song!"

Week 4: Adjectives

Adjectives are used to describe or modify a person, place or thing, and are recognized by their function in the sentence. Adjectives modify nouns or pronouns.

Example: person - a pretty girl
place - western Oklahoma
thing - round ball
pronoun - most of all

Some adjectives show degree of comparison such as positive, comparative and superlative, and may be identified by adding er for comparative and est for superlative, or prefixing more for comparative and most for superlative, and by using different words for each degree, such as good, better, best.

"Now mark the adjectives in the song!"

Week 5: Adverbs

Adverbs modify verbs, adjectives or other adverbs. Many but not all end in ly; they may introduce a question, such as where, when, or why; they may modify a whole sentence such as maybe, incidentally, therefore; or they may join two sentences together and modify the second one, such as: "the men did not complain; however they were silent for the rest of the evening." They may also compare the degree, and are sometimes confused with adjectives, but may be distinguished by their function in the sentence: adjectives modify nouns or pronouns; adverbs modify verbs, adverbs, or adjectives.

Example: comparison of degree

strong	stronger	strongest
good	better	best
beautiful	more beautiful	most beautiful

"Now mark the adverbs in the song!"

Week 6: Prepositions

Preposition precede a noun or pronoun and show its relationship to another verb, adjective or noun, such as after, around, at, to, behind, beside, for, in, into.

Example: nouns - to the girl
pronouns - to me

Examples of relationships in the sentence:

He is good at tennis. (relates the noun tennis to the adjective good)
They live in Detroit. (relates the noun Detroit to the verb live)
I am the head of the house. (relates the nouns head and house)

"Now mark the prepositions in the song!"

AMERICA

Far, we've been traveling far
Without a home, but not without a star
Free, only want to be free
We huddle close, hang onto that dream.
On the boats and on the planes
They're coming to America.
Never looking back again
They're coming to America
Home don't seem so far away,
Oh we're traveling light today
In the eye of the storm
In the eye of the storm.
Home, it's a new and shining place
Make our bid and we'll say our grace,
Freedom's light burning warm,
Freedom's light burning warm
They're coming to America
Every time that flags' unfurled,
They're coming to America.
Got a dream to take them there,
They're coming to America
Got a dream they've come to share
They're coming to America
They're coming to America, They're coming to America
They're coming to America, They're coming to America
Today Today Today
My country tis of thee Today
Sweet land of liberty Today
Of thee I sing Today
Of thee I sing Today
Today Today Today Today Today

Source: Diamond, Bennett, Bacoud, Fagan, Goodrum, Allison, Stills, & Black, 1980.

Amazed and Confused

Somebody's waiting on the river Jordan
Somebody's waiting on the other side.
Cast my stones on the way to heaven
On the way you know that I will abide
Yes, on the way you know that I will abide
Yeah! Walk that line boys!
I'm amazed - I'm confused
I've been dazed, yeah - I've been used
Take me home to that golden river,
Take me back to that other shore.
I'll find my way to that peaceful playground
I know I'll find it cause I've been there before.
Hey! Somebody's calling cross the river Jordan.
Somebody's calling from the other side.
Cast my stones on the way to heaven.
On the way you know that I will abide.
Hey! Welcome to the new world boys!
I'm amazed - I'm confused,
I've been dazed, yeah - I've been used,
I'm amazed - I'm confused,
I've been dazed, Yes, I've been used.
Amazed yeah, Oh yes! Oh yes!

Source: Diamond et al., 1980.

On The Robert E. Lee

Hey! Look at the way she's waving those sails
It's a wondrous sight to see
People hurry on down from every town
Have a look at the Robert E. Lee
Proud and strong and made to be free
Can't go wrong on the Robert E. Lee
Got the sun in my eyes and the wind in my face.
And it's good just to be alive.
Gonna set out tonight for New Orleans
And won't sleep til I arrive
And if I'm lucky, I'll find a young lady under the stars.
And we'll dance the night away
Somebody wake me and see it's a dream,
Leading me far from my home
And haven't you noticed, despite what it seems,
You can't deny it, it's you and I alone
Maybe spend my life just working the land,
Maybe living from day to day
But I'm free as the night in New Orleans
If I like it, I just might stay
Proud and strong and made to be free,
Can't go wrong on the Robert E. Lee
Got the sun in my eyes and the wind in my face
And it's good just to be alive
Gonna set out tonight for New Orleans
Won't sleep til I arrive.

Source: Diamond et al., 1980.

The Good Lord Loves You

I'm singing this song for the men in your prisons and jails.
The junkies and juicers, and every good man that fails
For every outlaw who's got no place left to go
The good Lord loves you
The good Lord loves you
The good Lord loves you so.

I'm singing this song for the leaders of every land
For every political and military man
For every mother and child in this kingdom below
The good Lord loves you
The good Lord loves you
The good Lord loves you so.
Ain't it sad that we're doing so bad.

I'm singing this song with a feeling that's deep in my heart
I wish I could tear down the walls, that keep us apart
I wish I could tear down the walls, so the feelings could grow
The good Lord loves you, The good Lord loves you,
The good Lord loves you so.
The good Lord loves you, The good Lord loves you,
The good Lord loves you, The good Lord loves you,
The good Lord loves you, The good Lord loves you so.
Ain't it sad that we're doing so bad.

Source: Diamond et al., 1980.

You Needed Me

I cried a tear, you wiped it dry,
I was confused, you cleared my mind.
I sold my soul, you bought it back for me
And you held me up and gave me dignity
Somehow you needed me
You gave me strength to stand alone again,
To face the world out on my own again,
You put me high upon a pedestal
So high that I could almost see eternity
You needed me, you needed me
And I can't believe it's you, I can't believe it's true,
I needed you and you were there,
And I'll never leave, why should I leave, I'd be a fool.
Cause I've finally found someone who really cares.
You held my hand when it was cold,
You gave me hope when I was at the end
And turned my lies back into truth again
To face the world out on my own again
You put me high upon a pedestal
So high that I could almost see eternity
You needed me, you needed me
You needed me, you needed me

Source: Diamond et al., 1980.

Every Face Tells A Story

There's no need for you to tell me
I can see the way you feel.
I just know without you saying
What is a lie and what's real
Every face tells a story, It's hard to hide a lie
Every face tells a story and yours is saying goodbye.
Something's going on and I know it.
Your smile cannot hide what you feel inside.
And I don't like what I see.
Every face tells a story, It's hard to hide a lie
Every face tells a story, and yours is saying goodbye.
You're always telling stories, You're always telling me lies.
You're always telling stories.
If you want to leave me, leave me, No good living a lie.
You can pretend that we're not gonna end,
But your eyes are saying goodbye
Every face tells a story, It's hard to hide a lie
Every face tells a story, and yours is saying goodbye
You're always telling stories, you're always telling me lies.
You're always telling stories, tell me I got a right to know.
Pour your little heart out to me baby
You know, you know I don't want to let go.
Every face tells a story, It's hard to hide a lie
Every face tells a story, yours is saying goodbye
Every face tells a story, It's hard to hide a lie
Every face tells a story, yours is saying goodbye.

Source: Diamond et al., 1980.

EXPERIMENTAL GROUP

Introduction

Each week, this group participated in a series of cognitive-affective activities that were involved in the decision making process of individuals and groups. The thread of commonality of these exercises was in developing an understanding of the self and others in making responsible decisions by identifying thoughts and feelings which were their own and which were of others, and then asserting them as their own by speaking for themselves in group decision making processes.

Rational for Cognitive Activities

Cognitive activities involve those objectives that deal with recall or recognition of knowledge, and the development of intellectual abilitites and skills. Affective activities involve those objectives that describe changes in interest, attitude and value, and the development of appreciations and adjustment (Bloom, Englehart, Furst, Hill, & Krathwohl, 1956).

The taxonomies of cognitive and affective domains are designed to be a classification of student behaviors that represent intended outcomes of the educative process. The intended behavior or outcomes indicates the way that individuals act, think or feel as a results of participating in some unit of instruction. These may differ in degree or kind from intended outcomes of behavior specified by the objectives. These intended outcomes represent social goals imposed by the society or culture as acceptable (Bloom et al., 1956).

The cognitive domain includes behaviors such as remembering, reasoning, problem solving, concept formation, and to some degree, creative thinking; with behaviors proceeding from very simple to complex behaviors. It is difficult to classify behaviors by making sharp distinctions among them, and many complex behaviors, include simpler behaviors (Bloom et al., 1956).

Rationale for Affective Activities

Affective objectives emphasize feeling tone, an emotion or degree of acceptance or rejection. These objectives vary from simple to complex qualities of character and conscience that appear to be internally consistent. These objectives are expressed as interests, attitudes, appreciations, values and emotional sets (Krathwohl, Bloom, & Masia, 1956).

One of the problems inherent in tapping affective behaviors is that one's beliefs, attitudes, values and personality are private matters and protected from public scrutiny and should have this protection. The question of education vs. indoctrination also arises. Education opens up possibilities of free choice and individual decisions, whereas indoctrination reduces the possibililty of free choice and decision (Krathwohl, et al., 1956). Pertinent to this study, peer pressure appears to be a form of indoctrination, followed by an expectancy of conforming to peer group behavior, and is contrasted with the educative process which opens possibilities of free choice and decision making within the peer group. Evidence suggests that affective behaviors develop when appropriate learning experiences are provided, much the same as cognitive behaviors develop from learning experiences that are appropriate (Jacob, 1957; Krathwohl et al., 1956).

The use of a hierarchy of continua of affective attributes is difficult to define in behavioral terms. This process appears to encompass levels of awareness, being able to perceive it; willing to attend to the phenomena; responding with a positive feeling; conceptualizing behavior and feelings and organizing it as it becomes the life outlook Krathwohl et al., 1956). Each activity included part but not all levels of the hierarchy of the affective domain, and were developmental in nature from beginning activities until culmination, to achieve internalization of values.

As this proceses is absorbed, it is described as being internalized within the individual as the affective domain (Krathwohl et al., 1956). English and English (1958) define internalization as incorporating or adopting as one's own; ideas, beliefs, values, interests and attitudes, but in varying degrees. It is closely related to the term socialization, used in the context of conformity in outward behavior, without necessarily accepting the values (English and English, 1958). Internalization also refers to inner growth as becoming part of himself in forming value judgments or determining conduct (Good, 1959) . The taxonomy provides equally for the development of conformity and nonconformity of individual behavior. At the lower end of the continuum, inner control merely directs attention; at higher levels, it produces appropriate responses, but only at the bidding of external authority; at even higher levels, it produces appropriate responses in the absence of an external authority; at even higher levels, these behaviors are produced consistently regardless of obstacles or barriers. There appears to be an external to internal transition of control and implies commitment (Krathwohl et al., 1956).

Experimental Group

The following activities provide experience with both cognitive and affective behaviors involved in individual and group decision making process.

Cognitive activities involve those objectives that deal with recall or recognition of knowledge and the development of intellectual abilities and skills. Affective activities involve those objectives that describe changes in interest, attitude and values and the development of appreciations and adjustment (Bloom et al., 1956; Krathwohl et al., 1956). Each activity is classified according to Bloom's Taxomony of Educational Objectives, Vol 1, Cognitive Domain (1956); and Vol 11, Affective Domain (Krathwohl et al., 1956).

Week 1

Hollow Square Exercise - decision making within a group (35 min.)

Cognitive Domain
1.0 Knowledge
1.2 Knowledge of ways and means of dealing with specifics
1.3 Knowledge of major schemes and patterns of orgnaization
2.0 Comprehension

Responsibility - own behavior (15 min.)

Affective Domain
1.0 Receiving
1.1 Awareness
1.2 Willingness to receive
2.0 Responding

Week 2

Group goals - identifying clear and unclear goals (30 min.)

Cognitive Domain
1.0 Knowledge
1.3 Knowledge of ways and means of dealing with specifics
2.0 Comprehension
2.1 Translation
2.2 Interpretation
3.0 Application

Figuring out what you want - overcoming feelings of powerlessness, anger, passive resistence (20 min.)

Affective Domain
1.3 Controlled or selected attention
2.0 Responding
2.1 Acquiescence in responding
2.2 Willingness to respond

Week 3

One way message - directive, coercive exercise, no mutual influence (5 min.)

Body Language - demonstrating how the body communicates messages (25 min.)

Cognitive Domain
1.21 Knowledge of conventions
1.24 Knowledge of criteria
1.25 Knowledge of methodology
1.31 Knowledge of principles and generalizations
2.0 Comprehension
2.2 Interpretation
2.3 Extrapolation
3.0 Application
4.0 Analysis
4.1 Analysis of elements
4.2 Analysis of relationships

Asking for what you want - making choices (15 min.)

Affective Domain
2.2 Willingness to respond
2.3 Satisfaction to respond
3.0 Valuing

Week 4

Stranded in the desert - dealing with conflicts in problem solving groups (30 min.)

Cognitive Domain
2.0 Comprehension
2.2 Interpretation
2.3 Extrapolation
3.0 Application
4.0 Analysis
4.1 Analysis of elements
4.2 Analysis of relationships
4.3 Analysis of organization principles
5.0 Synthesis

Confronting agitation - give up being a victim (12 min.)

Mind reading - overadapting or over reacting (8 min.)

Affective Domain
2.2 Willingness to respond
2.3 Satisfaction in response
3.0 Valuing
3.1 Acceptance of a value
3.2 Preference for a value

Week 5

Dominance/submission - who gives in, who dominates (5 min.)

Cognitive Domain
4.2 Analysis of relationships
5.0 Synthesis
5.3 Derivation of a set of abstract relations

Discounting and accepting strokes - give up personal power and accept positive feedback (15 min.)

Regaining personal power - reclaiming your own power (15 min.)

Rescue game - people can't help themselves, discounting others (15 min.)

Affective Domain
3.0 Valuing
3.1 Acceptance of a value
3.2 Preference for a value
3.3 Commitment
4.0 Organization
4.1 Conceptualization of a value
4.2 Organization of a value system

Week 6

Inclusion - control - affection - openness (10 min.)
Trust building behavior - openness in sharing (10 min.)
Expressing support - support is communicated to others (10 min.)

Cognitive Domain
3.0 Application
4.0 Analysis
4.1 Analysis of elements
4.2 Analysis of relationships
4.3 Analysis of organizational principles
5.0 Synthesis
5.1 Production of unique communication
5.3 Derivation of a set of abstract relations

Stopping the rescue game - asking for what you want, solve your own problems (10 min.)

Regaining personal power over feeling (10 min.)

Affective Domain
4.0 Organization
4.1 Conceptualization of a value
4.2 Organization of a value system
5.0 Characterization by a value or value system
5.1 Generalized set

Cognitive Activities

Week 1

Hollow Square Exercise - decision making - 35 minutes

The groups will be divided into subgroups by a numbering process. It is a problem solving situation in which one can observe leadership functions, group planning, communication problems and problems if implementation. Each group will have planners, implementers and observers. The planners will decide how they will instruct the implementers to complete a task. The implementers will carry out the task the best they can. The observers will watch the process to identify leadership behaviors.

Materials: Instruction sheets for planners, implementers, and observers
Planner packet - diagram sheet and puzzle pieces

Introduction

Planners are to go to one side of the room and implementers the other side. Observers are to observe the planning process and the implementing process. The planners are given the diagram sheet and the puzzle pieces.

The following instructions were read to the group:

Planners: "Your task is to decide on a plan of instructions for your team of implementers, on how to put the puzzle together. You have 20 minutes to plan. Then call the implementing team together to give them verbal instructions for putting the puzzle together. Once you have given your instructions, you must keep silent. You may not touch the pieces or help in any way." Call the implementing team.

Implementers: "You will carry out the task of putting the puzzle together according to intructions. Finish the task as quickly as possible. Once the instructions have been given, the planning team will not be allowed to give any further assistance. You have 15 minutes."

Observer: "Observation sheets focusing on leadership behaviors will be provided to help you observe. "

INSTRUCTION SHEET FOR OBSERVERS

You will be observing a situation in which a planning team decides how to solve a problem and gives instructions to an implementing team. The problem consists of assembling sixteen flat pieces into a square containing an empty square in its middle. The planning team is supplied with a general diagram of the assembled pieces. The planners are not allowed to put the puzzle together themselves, they are to instruct the implementing team on how to assemble the pieces in minimum time. You will be silent observers throughout the process. An observation sheet focusing upon task leadership behaviors is provided to help you observe. Make sure you understand the behavioral roles before you begin.

1. Each observer should watch the general patterns of leadership behavior.
2. What kinds of behavior block or help the process?
3. Are the team members participating equally?
4. How does the planning team divide its time between planning and instructing?
5. What group functions are not provided by the group members?
6. During the instructing process note these behavioral questions:
   a. At the beginning of the instruction, how do the planners start the implementers on their task?
   b. What do they assume they know?
   c. How effective are the instructions, are they clear?
   d. Does the implementing team feel free to ask questions?
   e. How do they show leadership?
   f. How does the implementing team show that instructions were clearly understood?
   g. Do the planning team members show a reaction as they watch their plans being misundersood or implemented?
   h. What leadership functions are present or absent?
   i. You should have two observation sheets, one for task and one for maintainence behaviors.

OBSERVATION SHEET FOR TASK BEHAVIORS

Behaviors	Group Members												
Information and Opinion Giver													
Information and Opinion seeker													
Starter													
Direction Giver													
Summarizer													
Coordinator													
Diagnoser													
Energizer													
Reality tester													
Evaluator													
Other													
Other													

OBSERVATION SHEET FOR MAINTENANCE BEHAVIORS

Behaviors	Group Members													
Encourager of Participation Harmonizer and Compromiser														
Tension Reliever														
Evaluator of Emotional Climate														
Process Observer														
Standard Setter														
Active Listener														
Trust Builder														
Interpersonal Problem Solver														
Other														
Other														

INSTRUCTION SHEET FOR PLANNERS

Each of you will be given a packet containing four pieces of a puzzle. When all the pieces from all four packets are properly assembled, they will form a large square containing an empty place in the middle. A sheet bearing a diagram of the completed puzzle is provided for your team. Your task is to:

1. Plan how the sixteen pieces distributed among you can be asssmbled to solve the problem.
2. Decide on a plan for instructing your operating team on how to carry out your plan for putting the puzzle together.
3. Call the operating team and begin instructing them at any time during the next 20 minutes.
4. Give them at least 3 minutes of instructions; the operating team must begin assembling the puzzle 20 minutes from now.

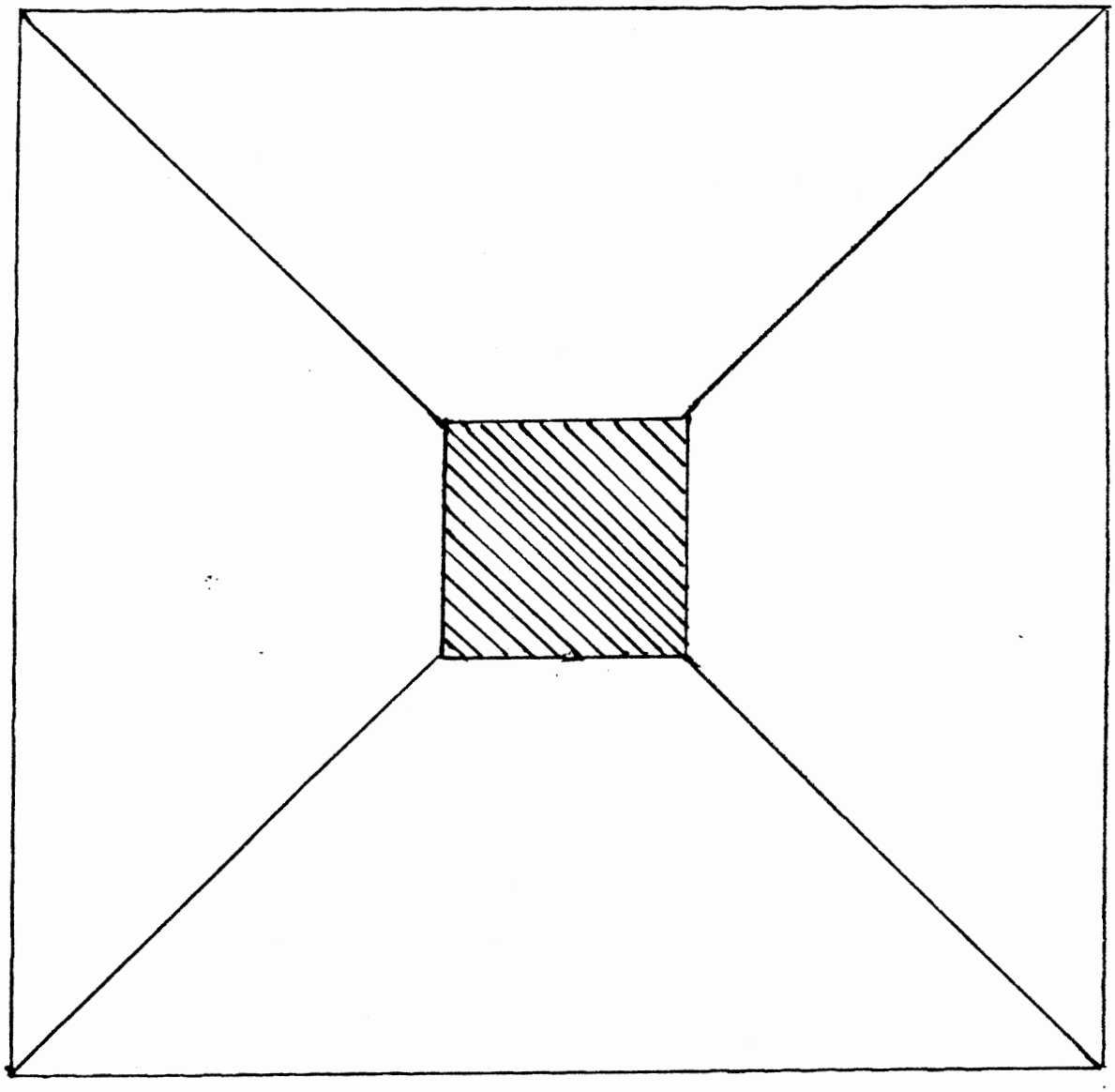
Before you begin read these rules:

1. Keep the pieces from your packet in front of you at all times.
2. Do not touch the pieces nor trade with any other persons, either now or during the instruction period.
3. Do not assemble the square; that is the implementers job.
4. Give all instructions in words. Do not show the diagram to the implementers; hide it. Do not draw any diagrams yourselves, either on paper or in the air with gestures. You may give your instructions orally or on paper.
5. The implementing team must not move the pieces until the signal is given to start.
6. Do not show any diagram to the implementers.
7. After the signal is given for the assembly to begin, you may <u>NOT</u> give any further instructions; stand back and observe. You may not touch the pieces or in any way join the implementers work.

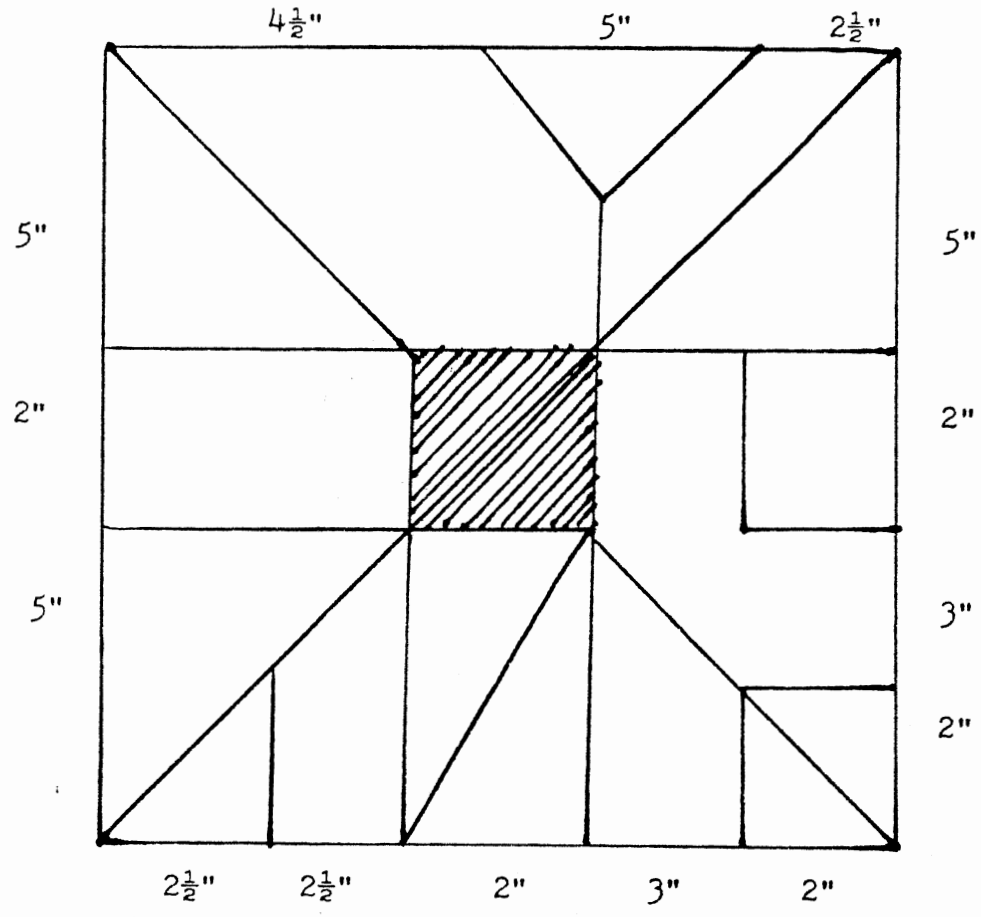
INSTRUCTION SHEET FOR IMPLEMENTERS

1. Your team will have the responsibililty of carrying out a task in accordance with instructions given you by your planning team.
2. Your task will begin 20 minutes from now.
3. Your planning team may call you in for instruction at any time during the next 20 minutes.
4. If they do not call you during the next 30 minutes, you must report to them on your own at the end of that time.
5. You may send notes to the planners and they may send notes in reply.
6. Once you have begun the task of assembling the puzzle, your planning team will not be allowed to give you any further instructions. Finish the assigned task as quickly as possible.
7. While you wait for a call from your planning team, do the following:
   a. Individually, write on a piece of paper the concerns you feel while waiting for instructions.
   b. As a group, think of anything you can that might help you follow instructions or keep you from doing so. Write actions that will help you on one sheet of paper and those that will hinder you on another.
   c. Make notes on how the four of you can organize as a team to receive and follow the instructions.
   d. Keep handy the sheets on which you have written these notes. You may find them useful during the discussion that takes place after you have completed the task (Johnson & Johnson, 1975)

HOLLOW SQUARE PATTERN



HOLLOW SQUARE EXERCISE



Week 1

Responsibility - owning behavior - 15 minutes

A first step in becoming responsible for ourselves is figuring out what we need or want. When needs are not met, we are off balance, or not centered, and development of our potential is hindered. Wants, we can do without, but nevertheless are important to self fulfillment. Passivity is generally defined as ineffectiveness in getting wants and needs met and is opposite of being responsible. When we are passive, we do not take the time or energy to determine what we want or need, but wait until other people or situations develop to determine what happened. Passivity decreases the chances of having our needs or wants met, although an individual does appear to get something out of being passive, or they would not persist in this behavior. The payoff for passivity is that we can disown or deny any responsibility for our own behavior and life situations. When we don't get what we want or need because we've been passive and have allowed others to determine what happens, it is very easy to bemoan how awful our situation is, that this has "happened to me". When we are passive, we don't have to risk or invest anything of ourselves, that is wanting or needing anything; therefore, it we don't get it we are not disappointed.

An important part of becoming responsible for our behavior is "owning" what we do, say, think or feel. Many times when we express our opinions or feelings, we speak in general terms such as "when you say something stupid, you feel . . ." or "people get angry when they're insulted . . ." or "they say . . . ." The speaker could own these statements by using "I" feel, think or do these things. for example, "When I say something stupid, I feel embarrassed." Owning feelings by the use of "I" also shares information about ourselves to others. Using general terms serves to avoid closeness and intimacy, and may even avoid dealing with ourselves. In this way, we use language to remain remote or removed from ourselves and others, or we can own our thoughts and feelings and maintain contact with ourselves and other.

In the following exercises encourage youngsters to use "I" statements when they are expressing their thoughts and feelings. If you hear them saying "people" or "we" when they mean "I", ask if they really mean "I", and to restate what they have said using an "I" statement.

Taking Responsibility. This exercise is designed to help children or adolescents to take responsibility for themselves and their behavior, and to create an awareness about their responsibility and ability to choose their behavior and confront passivity. Materials needed: paper and pencil.

Instruction

"I want everyone to get into small groups of four or five." "I want all of you to make a list of the things you have to do. Some of the things that might be on your list are, 'I have to make my bed every morning.' 'I have to go to bed at 8:30.' I have to go to school.' Write down as many things that you have to do that you can think of.

Pause while they make their lists.

"Now I want you to read some of the things on your list to the others in your group, and as you do that, say," I choose to . . . instead of I have to . . . for each of the things that you read. I want you to do this even though you may think you really do have to do these things. Try saying, 'I choose to . . . even through you may not agree.'

As they are doing this, circulate among the groups and make sure they are saying "I choose to . . . ."

Many will probably argue that they don't choose to do the things on their lists; their parents "make" them, etc. This will probably lead into a discussion of the consequences of not doing the things on their list. This can lead to a discussion of the alternatives available to them. It is important that they do have a choice about what they do, that only rarely does someone really make them do something. In some cases they may discover that there is an alternative they prefer and decide to change their behavior. In other cases, they may also decide that they choose to something because if they don't they face a worse consequence.

Discuss how realizing that we choose to act the way we do allows us to take responsibility for ourselves, which enables us to decide how we want to act, whether we want to change or continue doing what we've been doing. This realization gives us a lot of power over ourselves (Hendricks & Roberts, 1977).

Week 2

The Million Dollar Gift Exercise - identifying clear and unclear goals - 35 min.

All problem-solving groups have goals. One of the most important aspects of group effectiveness is the group's ability to define its goals and achieve them successfully. Group goal accomplishment is based on the members of that group's commitment to accomplish the goal. As the individual commits himself/herself to achieving a certain goal, an inner tension develops and continues until the goal is reached and psychological closure is achieved concerning that goal. This internal tension motivates the group to work toward the goal. Commitment to achieving a goal depends on several factors: the attractiveness of the goal; is it likely to be achieved; is it challenging; knowing when the goal is achieved; the satisfaction of achieving a goal; and the relationships of the group working together. Paper and pencil may be needed.

Exercise

1. Introduce the exercise as an experience concerning decision making, coordination and group representation.

2. Divide a group into three smaller subgroups of five or more members. Members of each subgroup are told that they have five minutes to meet one another and get acquainted and to appoint a representative. They are also told that they will be given a common task to work on with the other subgroups.

3. Seat the three representatives in the center of the room. Members of each subgroup sit together in a position where they can see their representative clearly. The following role-playing situation is then explained. A national foundation wishes to award 1 million dollars to the school system that is made up of the three subgroups - on condition that the entire school system agrees on a project on which the million dollars will be spent. The representatives are then told to go back to their respective subgroups and within fifteen minutes develop a million dollar, school-project proposal to be presented to the other two subgroups. The representatives will present the proposals.

4. After fifteen minutes have the three representatives again meet in the center of the room. Tell them that they are to present their proposals and they they must come to an agreement on one that will be acceptable to all three subgroups for presentation to the foundation.

After all three proposals have been presented, the representatatives should reconfer with their subgroups for five minutes before continuing their meeting.

5. After the five-minute meeting with subgroups, have the representatives continue their discussion. They are to meet for five minutes and then break for another five minute meeting with their subgroup. During the representatives meeting the subgroups may communicate with their representative to reach an agreement.

6. Ask the representatives to state what they are feeling, and the members of the three subgroups how they feel. Hold a summary discussion, paying particular attention to such issues as:

   a. Did the group reach agreement on a common proposal? Were they too locked into their own position to compromise even when the prize was $1 million?

   b. Did the three subgroups tend to compete rather than cooperate? Did the degree of cooperation within each subgroup differ from one subgroup to another? If so, why?

   c. What sorts of group pressures were felt by the representatives? How much power and freedom were given to each representative?

   d. What were the goals of the subgroups in the negotiations? How did they affect the behavior of the subgroup and its representatives?

   e. How were the decisions made within each subgroup? How were they made among the representatives?

   f. Was the participation and leadership behavior distributed among subgroup members? What task and maintenance functions were present and absent?

Ingredients of Cooperation

1. Individual members must understand the total problem that has to be solved.

2. Individual members must see how each can contribute toward solving the prolem.

3. Individual members must be aware of the potential contribution of the other group members.

4. Individual members must see the other members' problems in order to help them make their best contribution.

5. Individual members must be aware of the cooperative goal structure of the group.

Cooperative Goal Structure

1. Members must interact, give and receive help from one another, and share ideas, information, and resources to help accomplish the group's goals.

2. The group goal of getting the task done at the highest level possible must be accepted by everyone, and members need to develop commitment to the group goal.

3. Because the possibility exists of different group members doing different subtasks, groups may divide the labor in various ways to accomplish their goals.

4. Rewards, if any, must be based upon the quality and quantity of group performance, not individual performance (Johnson & Johnson, 1975).

Week 2

Figuring Out What You Want - Overcoming feelings of powerlessness, anger, and passive resistance - 20 min.

One of the ways that we maintain passivity is by believing that there are no alternatives to the ways we think, feel or behave. There are always alternatives: some may be feasible and make sense, others may not be possible or realistic. It is important to realize that we have choices and have the power to change what we do. The following exercise is designed to help children look at the alternatives, and then decide how they want to act, feel, or think.

Instructions

"Think of all the things you could do instead of of . . . ." Have them make a list of alternatives of the things on their "have to do" list. "What else could you do . . . ."

Many times they claim they can't think of anything. Give them permission to think: "You can think and figure out some other things you could do. I can think of several." Don't do their thinking for them, give them time to think for themselves. After they have come up with a couple of alternatives, you could suggest a few others. At this point, it's all right for them to list alternatives which are impossible or impractical. Later you will help them discard the unrealistic ones.

After they have come up with a list of alternatives, ask them, "Are all of your alternatives possible ones?" Which ones aren't possible? Why? Of the alternatives that are possible, which one do you like the best? have them rate each alternative on a scale of 1 to 10: 10 being "like the most" and 1 being "like the least." They can then eliminate the choices that they rated 5 and below and choose between those left based on which they like the most and which makes the most sense as being possible.

Materials: Pencils and paper. lists of "have to do" from last week (Hendricks & Roberts, 1977).

Week 3

Exercise I

One Way Message - no mutual influence - 5 minutes

This illustrates what happens to a message that is passed through a group of people with little or no clarification. Three psychological processes tend to characterize the communication between persons who are unable to communicate directly with the original source of a message (Allport & Postman, 1945; Bartlett, 1932). The three processes are attempts to reduce the message to a simple one that has significant for the receiver in terms of his own interest, experience, frame of reference and tasks. The more the message is passed from person to person, the more distorted and changed it will become. The three processes are : (1) the receiver tends to level or reduce the amounts of information he receives by remembering less; the message grows shorter and more concise; (2) certain points are emphasized or sharpened, while most of the message is forgotten; (3) assimilation whereby the receiver takes much of the message into his/her own frame of reference; therefore the receivers interpretations, memories and feelings are affected by what he/she receives. Ineffective communication usually results.

Materials: None

Instructions

Give the message to one person by whispering, and tell them to pass it aloud to the group and compare it with the original message. Discuss the differences and why.

Exercise II

Body Language - How the body communicates messages - 5 min.

Arm positions and dominance: dsemonstrate and discuss feelings.

1. one arm extended - implies guarded extension of himself to others

2. both arms extended - invites interactions

3. both arms at the sides in a relaxed position - suggests openness

4. arms across the chest - self protection with double strength

5. hands on hips - most self concerned and haughty

6. open arms with one extended - leader, initiater

7. warm encounter - extending one or both arms, facing the other person.

8. cold encounter - lack of contact, maintain distance, arms held back, possibly an elevated shoulder.

It is believed that the body projects its message more rapidly and more accurately than the mind with its dependence on words and perceptions. This exercise is to help individuals interpret the messages of the body symbols (Speigel & Machotka, 1974).

Exercise III

Murder Mystery Exercise - problem solving in a group - 25 minutes

The following exercise is a mystery situation that can be used to study the way in which information is communicated in problem solving groups. Each clue should be written on a separate card, and the cards should be passed out randomly to the group members. Groups of any size can be used. The task of the group is to solve a murder mystery by finding the murderer, the weapon, the time of the murder, the place of the murder and the motive. Each member has some clues that will help solve the mystery. These clues may be communicated verbally, but the cards may not be shown to other group members. The clues are:

When he was discovered dead, Mr. Thompson had a bullet wound in his calf and knife wound in his back.

Mr. Thompson had virtually wiped out Mr. Barton's business by stealing his customers.

The elevator operator reported to police that he saw Mr. Thompson at 12:15 a.m.

The bullet taken from Mr. Thompson's calf matched the gun owned by Mr. Barton.

Only one bullet had been fired from Mr. Barton's gun.

The elevator man said Mr. Thompson did not seem too badly hurt.

A knife found in the parking garage had been wiped clean of fingerprints.

Mrs. Scott had been waiting in the lobby for her husband to get off work.

The elevator man went off duty at 12:30 a.m.

Mr. Thompson's body was found in the park.

Mr. Thompson's body was found at 1:20 a.m.

Mr. Thompson had been dead for about an hour when his body was found according to the medical examiner.

Mrs. Scott did not see Mr. Thompson leave through the lobby while she was waiting.

Bloodstains corresponding to Mr. Thompson's blood type were found in the basement parking garage.

Police were unable to locate Mr. Barton after the murder.

Mr. Thompson's blood type was found on the carpet outside Mr. Barton's apartment.

There were bloodstains in the elevator.

Mrs. Scott had been a good friend of Mr. Thompson and had often visited his apartment.

Mrs. Scott's husband had been jealous of the friendship.

Mrs. Scoot's husband did not appear in the lobby at 12:30 a.m. the end of his normal working hours. She had to return home alone and he arrived later.

At 12:45 a.m. Mrs. Scott could not find her husband or the family car in the basement parking lot of the apartment building where he worked.

Materials

The above clues are to be printed on 3 x 5 index cards. A briefing sheet and an observer frequency chart are also needed

Discussion questions

a. What were the patterns of communication within the group. Who spoke to whom? Who talked, how often and how long? Who triggered whom in what ways.

How did members feel about the amount of the participation? What could be done to gain wider participation?

b. Was the needed information easily obtained by all the group members? Did group members share their information appropriately, request each other's information and create the conditions under which the information would be shared?

c. Were the resources of all group members shared and used? Was everyone listened to?

d. How cooperative or competitive were the group members?

e. How did the group make decisions?

f. What problems did the group have in working together?

g. What conclusions about communication can be made from the group's experience (Johnson & Johnson, 1975)?

Murder Mystery Exercise Solution

After receiving a superficial gunshot wound from Mr. Barton, Mr. Thompson stepped on the elevator and was killed by Mr. Scott (the elevator man) with a knife at 12:30 a.m. because Mr. Scott was jealous.

Week 3

Asking for What You Want - making choices - 15 minutes

It is important to learn how to ask for what you want, rather than manipulating, controlling, being competitive or going without. Asking directly for what we want increases the chances of getting it. We can learn to do this without hurting ourselves or others.

It can be frightening to do this initially, because we have been taught or believe that the only way to get what we is through roundabout means (manupulating, lying, acting helpless, being tough, etc.). Asking straightforwardly indicates that we are risking being honest and letting the other person know how we feel, and we are also risking the other person saying "no."

At first students may ask for superifical things from one another. When they find out that this is safe and that is works, they will begin to risk more and ask for what is really important to them. You may need to set the example by asking several for something that you want from them at the beginning of the exercise. No materials needed.

Instructions

"I want all of you to get into small groups of four or five." "We're going to do an exercise to help you think about and ask each other for what you want from each other. Sometimes we want somethings from someone, want to do something with them, or want them to change something about how they act, but we don't ask them for that. We may be afraid, or we don't think they'll listen or maybe we don't think we have the right to ask for what we want. Sometimes we do things to try to make people do what we want; sometimes we are sneaky and try to trick them into doing what we want; and sometimes we just go without what we want."

"Right now, we're going to practice asking each other directly for what we want. Take a few minutes, and think about what you want from or with each person in your group. As you do this, think about how you want the person to act." It is important to be very specific in your requests. For example, "I want you to be nicer, will you do that?" does not define what you want the person to do, instead you could say, " I want you to talk to me, and tell me how you feel instead of giving me dirty looks, not talking to me, and slamming the door. Will you do that?" This gives specific information to the other person what you are asking for. Be sure to give the students the permission to say "no" when they are asked if they will do something. When the student

does respond "no" to another student, encourage the second student to think of something else he or she wants.

Discussion

Ask the students how they felt as they did this exercise. Was it frightening? Did someone say "no" to what they asked for? How did they feel about that? Did they think of another alternative?

Discuss why it is important to figure out what we want. Sometimes we feel angry or afraid or unhappy about something, and if we don't figure out what we want and ask for that, we will probably stay angry, or afraid or unhappy, and nothing will change to make us feel better.

Also discuss the importance of responding honestly when someone asks you to do something. If we say "yes" to someone's request of us, even when we aren't really willing to do it, either we won't do it anyway or will feel put upon to do something we really didn't want to do. Or if we say "yes" and are not honest about our intentions in carrying it through and the other person is counting on us, then he/she will be angry if we don't do as agreed, and creates further problems between us. Asking for what is not a guarantee that you will get what you want, but your chances are greater (Hendricks & Roberts, 1977).

Week 4

Stranded in the Desert Exercise - problem solving in a controversial setting - 30 minutes

There is nothing quite so beautiful as a desert night. And there are few places more dangerous to be stranded in than the desert during the night or day. Controversies, in helping a group make better decisions, are helpful in such dangerous situations, though the seriousness of it may intensify the emotional content of the arguments over what a stranded group should do. The purpose of this exercise is to examine the results of controversy in such a serious situation, and to determine how controversy affects the decision made by members of a group caught in a dilemma. The materials needed for the exercise include a description of the situation, an observation sheet with instructions on how to use it, role-playing instructions for group members, and a post-decision reaction form. The procedure for the coordinator is as follows:

1. Introduce the exercise and set the stage by reviewing the basic situation of being stranded in the desert and the urgent necessity to make a decision about what course of action would be best for the group's survival. State that the objective of the exercise is to focus on controversy within the group.

2. Divide into groups of role players and two observers. Distribute a situation sheet to everyone and distribute the eight role-playing sheets so that each group member has a different one, instructing participants not to show their sheets to each other.

3. While the group members are reading their situation sheets and their role sheets, meet with the observers. Distribute the Controversy Observer Instructions and the Observation Sheet and discuss them until the observers clearly understand their responsibilities.

4. Give the signal for the session to begin. Groups have up to thirty minutes to make two decisions: (1) whether they will stay with the wrecked bus, or whether they will try to walk to the ranch, and (2) whether they will or will not hunt for food. After twenty-five minutes give a five-minute warning.

5. At the end of the thirty minutes stop the group discussions, hand out the Post-Decision Reaction Form and instruct the participants to complete it. Collect the questionnaires and calculate the group means for each question. Discuss the correct decisions and their rationale. Then present the questionnaire date by placing it in the Summary Table. Talk over the data gathered

by the observers and its relationship to the questionnaire results. Discuss briefly the differences among the groups, and then ask the groups to review their experience, using the information collected by the observers, the questionnaire results, the Constructive Controversy Checklist, and the discussion questions given below. Instruct the groups to write on newsprint their conclusions about how they handled the controversy and how the controversy should have been handed.

6. After thirty minutes ask the groups to share their conclusions in a general session.

Constructive Controversy Checklist

1. How was the controversy defined? Was it defined as an interesting problem presenting a joint challenge that required a mutually acceptable solution or as a win-lose competition?

2. Did all members participated fully or did some members withdraw or censor their ideas and positions in order to avoid conflict?

3. Were the ideas and feelings of all the members expressed openly and honestly?

4. Were underlying assumptions and frames of reference brought out into the open and discussed?

5. Were everyone's contributions taken seriously, valued, and respected? Did members listen and pay attention to what each had to say?

6. Were quiet members encouraged to participate?

7. Was disagreement taken as personal rejection by some or all of the group members?

8. Was there adequate differentiation of positions? Did group members understand the differences among their positions? Were differences of opinion sought out and clarified?

9. Was there adequate integration of positions? Did group members understand the similarities among their positions and find ways to combine positions so that all parties were satisfied?

10. Did members in disagreement fully understand each of the others' positions and frames of references? Did they engage in paraphrasing, negotiating for meaning, personal statements and other forms of effective communication?

11. Were emotions ignored or treated with uninvolved understanding or were they responded to with emotions?

12. Was the situational power of all members balanced?

13. Was the tension level productive or was it too high or too low for problem solving to take place?

14. Were there incentives for a creative resolution of the controversy?

15. Were conflit-reducing procedures, such as tossing a coin, voting or bargaining, used or did the group arrive at resolutions that satisfied everyone?

Discussion Questions

1. What were the results of the questionnaire responses of your group members? How do they compare with other groups? What happened to influence the responses of your group's members?

2. What are the results of the observers' information collecting? How do they compare with the questionnaire results? What happened in the group to influence members' behaviors toward the directions observed?

3. How did the group handle its controversies? Given the checklist for constructive controversies as a guide, how does the group function in controversies?

4. How did the group make its decisions? What method did it use? Why was that method used?

5. From its experience, what conclusions can the group make about the constructive handling of controversies?

6. Were opinions of members changed as a result of the discussion? Did members gain insight into other points of view? Did they learn new things about the issue?

7. What did members learn about themselves and other group members? How did you react to the controversy?

Situation

You are one of eight members of a geology club that is on a field trip to study unusual formations in the New Mexico desert. It is the last week in July. You have been driving over old trails, far from any road, in order to see out-of-way formations. At 10:46 a.m. the specially equipped minibus in which your club is riding overturns, rolls into a fifteen to twenty foot ravine, and burns. The driver and the professional adviser to the club are killed. The rest of you are relatively uninjured.

You know that the nearest ranch is approximately forty-five miles east of where you are. There is no other place of habitation closer. When your club does not report to its motel that evening you will be missed. Several people know generally where you are, but because of the nature of your outing they will not be able to pinpoint your exact whereabouts.

The area around you is rather rugged and very dry. You heard from a weather report before you left that the temperature would reach 110 degrees, making the surface temperature 130 degrees. You are all dressed in lightweight, summer clothing, although you do have hats and sunglasses. Before your minibus burned, you were able to salvage the following items:

Magnetic compass	One jacket per person
Large, light-blue canvass	Accurate map of the area
Book, Animals of the desert	A .38 caliber pistol, loaded
Rearview mirror	Bottle of 1,000 salt tablets
One flashlight	Four canteens, each containing two quarts of water

The group needs to make two decisions: (1) to stay where it is or to try to walk out, and (2) to hunt for food or not to hunt. To make these decisions, it will be necessary to rank the salvaged items in the order of their importance. And in making the group decisions, your group must stay together.

Briefing Sheet

1. This is the first meeting of your group.
2. Basically, the data you bring with you are in your head.
3. Assume there is one solution.
4. Assume that all information is correct.
5. There must be substantial agreement within the group when the problem has been solved.
6. You must work on the problem as a group.

Stranded in the Desert Briefing Sheet 1

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should stay at the scene of the wreck and not hunt for food. You believe it is viatally important for everyone to remain calm and inactive, as movement and excitement will increase with dehydration. You think the mirror is the most important item the group has, as it will help signal for help when search planes come into sight. A mirror can reflect enough light to be seen even beyond the horizon. The water, although it may help somewhat in easing the effects of dehydration, will not, in your opinion, significantly prolong life. There are cacti around, but at this time of year a person would use up more body water cutting them apart than he would gain from sucking their inner fibers. Thus it seems to you that keeping still and signalling from where you are is the best thing to do.

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Stranded in the Desert Briefing Sheet 2

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should try to walk out to the nearest ranch and hunt for food along the way. It is your opinion that the salt tablets and the water will be enough for the trip; you have often taken long hikes, and forty-five miles does not seem an unreasonable distance to you. You know there are barrel cacti along the route the minibus took coming in, and you think that additional water can be gotten from them. Because you are an expert marksman with a rifle, you thinking hunting animals for food will be easy. The water, salt tablets, and pistol are all highly important to you. From your point of view the situation is not terribly serious unless you wait too long before starting to walk out and obtain food for energy.

Stranded in the Desert Briefing Sheet 3

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should walk out to the nearest ranch, but not do any hunting along the way. The group has lots of water (one quart per person), and a compass and map so that you cannot possibly get lost. The canvas can be rigged for a sunshade during the day, and the group can walk during the night. In your opinion the water, the compass, the map and the canvas are all vital to the group's survival. Thus it seems to you that resting in the shade during the day and walking out during the night without wasting any time or energy for hunting would be the best thing to do.

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Stranded in the Desert Briefing Sheet 4

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should stay where it is and hunt for food to keep alive while waiting to be rescued. You believe that there is not enough water to last the group on the forty-five mile walk to the nearest ranch. The salt tablets are highly dangerous and should be destroyed; without a lot of water to dilute them, you would get the same effects as drinking sea water. You also believe that the group may be hard to find and that you may have to stay where you are for several days; hunting would be something to occupy everyone's mind and be a healthy diversion as well as providing food. The two most important items in your opinion are the mirror and the flashlight, as they can be used to signal search planes during the day and night. The water is also important. Thus it seems to you that the group's chance for survival rests in staying where you are and hunting for the food needed to keep you alive.

Stranded in the Desert Briefing Sheet 5

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should stay where it is and no one should hunt for food. Your view is that the canvas and the jackets are highly important; the canvas will work nicely as a sunshade, and each person should wear his jacket to help conserve his body water. The hot sun and the dry air circulating next to a person's body cause dehydration, which is the main hazard in the situation. The mirror is an important signaling device. Because you believe that a search party will be able to estimate your approximate location, you expect to be rescued soon--providing the group does not leave the wreckage. Your point of view is that the hope for survival depends upon staying where you are so that search planes can find you and no hunting because the effort will speed dehydration.

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Stranded in the Desert Briefing Sheet 6

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should walk out but not do any hunting. The water and salt tablets are important to you--the water to prevent dehydration and the salt to help your bodies retain fluids. Inasmuch as the main objective is to reach the ranch as soon as possible, the group should not waste any time and energy by hunting; a person can live quite a while without food, and hunting is a stupid waste of energy. The protein the meat of any animal you were lucky enough to kill would require increased amounts of water to digest and there is no water to spare. The compass and map are highly important as they will heep you from getting lost. The survival of the group, from your point of view, depends entirely upon walking out to safety without wasting time and energy on hunting.

Stranded in the Desert Briefing Sheet 7

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should stay where it is and hunt for food while it waits to be rescued. The distance to the nearest ranch is too far to walk in the desert and besides, several members of the group have never walked that far in their lives even under the best conditions. The shock of being in a wreck decreases their strength even further. You have the gun and book to help get food; the book will tell you which animals are edible, and the gun can be used to kill them. A search party is bound to be sent out early tomorrow morning so all the group has to worry about is getting food and waiting. The book and the gun are crucial items for the group's survival. Thus the group's only chance for survival seems to you to be to stay where you are and hunt for food to provide energy to signal to search parties.

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Stranded in the Desert Briefing Sheet 8

Study the following briefing carefully, keeping it to yourself. Do not let the other group members read it. Try to think up new arguments for your position. Although you should argue your position strongly, you can change your mind if someone else has convincing evidence.

Your position is that the group should walk out and hunt along the way. You think the group should not sit around and bake; they should get to the ranch fast! You can get as much water as you want from the cacti that seem to grow everywhere, so water is not a problem. The hunting is going to be easy because you have the book to tell you what to kill and the pistol to kill with. You have heard of many people disappearing in the desert and never being found; you think if the group is to survive it has to walk out on its own. The book and gun are important to you. You know that the nights get cold in the desert, so you also think the jackets are highly important. Because the group can follow the tire marks of the minibus, you see no need for the map or compass. The survival of the group, from your point of view, depends entirely upon starting to walk out immediately, while hunting for food to insure adequate strength along the way.

Post-Decision Reaction Form

1. What did your group decide?

_____Stay where you are _____Walk out _____Could not decide

_____Hunt _____Not to hunt _____Could not decide

2. How understood and listened to did you feel in the group?

Not at all 1 2 3 4 5 6 7 8 9 Completely

3. How much influence do you feel you had on the group's decision.

Not at all 1 2 3 4 5 6 7 8 9 Completely

4. How responsible or committed do you feel to the decisions that were made?

Not at all 1 2 3 4 5 6 7 8 9 Completely

5. How satisfied are you with your group's performance?

Very Dissatisfied 1 2 3 4 5 6 7 8 9 Very Satisfied

6. I would assess my learning about the issue under discussion to be:

Not at all 1 2 3 4 5 6 7 8 9 Completely

7. Write two adjectives describing the way you feel

_____ _____

Stranded in the Desert Exercise

**Important facts about surviving in the desert. The information was taken from Paul Nesbitt, Alonzo Pond, and William Allen, The Survival Book (1959).

The group has just been through a traumatic situation that has had a shocking impact on all members. The fact that their adviser was killed would increase the shock reaction. Most if not all, members of your group need to receive treatment for shock. The group also needs to make some very clear and correct decisions about what it should do next.

The most vital problem for the group is dehydration from exposure to the sun, from bodily activity causing perspiration and respiration, and from the hot dry air circulating next to the skin. Thus, a sunshade needs to be rigged from the canvas, and everyone needs to wear his jacket (without wearing the jackets, trousers, socks and so on, survival time will be shortened by at least a day). Once the sunshade is up, everyone should be as calm and inactive as possible. The canvas will also be a signaling device once it is spread out as a sunshade. Any activity increases heartbeat, respiration, perspiration, all of which speed up dehydration. Taking care to remain calm and under cover, the group could probably survive three days without water.

The most important items for survival, however, are the mirror and the flashlight. Their use is to signal search parties who may enter the area. The mirror is especially useful as it can generate from 5 to 7 million candlepower, which can be spotted even beyond the horizon. By using the mirror, the group has an 80 percent chance of being rescued within twenty-four hours.

The water is not enough to significantly extend survival time, but it will help in postponing the more severe effects of dehydration. Because the group must make important decisions soon after the accident, the water should be drunk as members become thirsty. There is not enough water to reverse the effects of dehydration once they begin, so saving or rationing the water serves no purpose. In late July, furthermore, the cacti contain very little water; a member would probably use up more water through respiration in breaking up the cacti than he would get from sucking its inner fibers. The belief that salt tablets retain water is a myth; blood salinity increases with dehydration, and in taking the tablets members would need large amounts of water (far more than a quart) for the body to rid itself of increased salinity. If a member took the salt tablets he would get the same effect as drinking sea water.

Starvation is not the issue; the issue is dehydration. Increased activity in hunting would result in increased dehydration. It would also be very hard to kill an animal with enough meat to feed the group; the animals of the desert survive by "lying low." They are seldom seen. If the group got lucky and killed an animal, the protein in the meat would require increased amounts of water to process it. Thus, eating would hasten dehydration and do far more harm than good. The book is worthless. The pistol is good only as a signaling device. The group should not hunt.

If the group decides to walk out, even walking only at night, all members will probably be dead on the second day. They will have walked less than thirty-three miles during the two nights. If group members decide to walk during the day, they would proably be dead by the next morning--after walking less than twelve miles. For the group to walk out--having just gone through a traumatic experience that has had a considerable impact on the body, having few if any members who have walked forty-five miles before, and having to carry the canvas and wear the jackets to prevent dehydration--would be disastrous. One further fact of great importance: once members started walking, the group would be much harder to spot by search parties (Johnson & Johnson, 1975).

Observer Instructions

This exercise is concerned with the process by which group members manage controversy. Critical issues to observe are as follows:

1. Do the participants have a problem-solving or a win-lose outlook toward the controversy? A problem solving orientation is characterized by an approach to the controversy as a mutual problem presenting a challenge for all to arrive at a mutually acceptable solution. A win-lose outlook is characterized by the attempt by certain group members to dominate others and have them submit to a particular position.

2. Is everyone participating by presenting ideas, information, positions, and opinions?

3. Is the basic situation the group faces being clarified? To make a high quality and creative decision, every member must undertand the basic problem with which the group is confronted.

4. Are feelings being discussed as well as information and opinions? Are participants discussing their feelings as openly as they discuss their opinions?

5. Is there adequate differentiation? Exploring points of disagreement, trying to get at basic assumptions, divulging information, clarifying lines of reasoning, and seeking out differences of opinion are all examples of differentiation.

6. Is there adequate integration? Are ways being sought to combine different information, opinions, and positions into one new position that every member can support (Johnson & Johnson, 1975)?

Response to Controversy Questionnaire

Group	Decision 1 and 2	Understood	Influence	Commitment	Satisfaction	Learning	Feelings
1							
2							
3							
4							

**If both decisions were made correctly, give the group a 2
If one decision was made correctly, give the group a 1
If neither decision were made correctly, give the group 0

**Find the group means and record in the appropriate column
**In the feelings column, put representative adjectives

Week 4

Victims and Villains 12 min.

Taking responsibility for ourselves requires that we give up our favorite villains: parents, teachers, siblings. We must also give up being the victim. At time others may act cruelly or unfairly, but we choose how to respond. We do not have to feel angry or bad when someone is mean to us, or cheats us, or frightened when someone threatens us; and we do not need to make others into villains. When we make someone play the villain, we disown our responsibility in the situation. No materials required.

Instructions

This exercise is designed to help students give up being the victim and making others into the villains. Have the students get into groups of three. "Remember a situation in which you were a Victim, a situation in which bad things happened to you. In your groups, take turns and describe that situation. As you describe it, stay in the Victim's role and describe what the other people did to you. The others in your group are to make sure you stay in the Victim's role and make everything the other person's fault." Allow all the students to do this in their group.

"Now, I want you to describe the same situation, but this time you are to take full responsibility for what happened. Use "I" statements and describe what you did to create the situation and your bad feelings." People generally have trouble doing this, but encourage them to do it anyway.

"As you are doing this, think about why you created this situation. What did you get out of the situation? What did you get out of your bad feelings of being a Victim? What did you get out of making someone else the Villain or bad guy? What opportunity did it give you to work on some aspect of yourself? What could have done differently to not end up feeling like a Victim?

Discussion

Discuss the exercise with the students. How did they feel when they took full responsibility for what happened in their situation? Did they learn some things about themselves? Did they have trouble taking full responsibility for the situation? Help them to see what they did or didn't do to create their situation (Hendricks & Roberts, 1977).

Week 5

Dominance/Submission - who gives in, who dominates - 5 min.

Divide into pairs. Sit in chairs facing one another. You have five minutes to decide, nonverbally, who is going to sit on the floor. At the end of this time, one person must be on the floor. See what happens and discuss (Johnson & Johnson, 1975).

Week 5

Discounting is the way in which passivity is maintained. Discounting happens when we deny or minimize some aspect of ourselves (self-discount), some aspect of others or some aspect of the situation. Failing to answer in class a question you know the answer to because you're afraid you'll look stupid; interrupting someone is a discount of the person; discussing an important topic when the other person doesn't have time to listen is a discount of the situation. When we discount, we are passive and are disowning the problem, our behavior, or feelings, and avoid dealing with them effectively to get our needs met. This gives us an excuse to maintain passive irresponsible behavior. The opposite of discounting is accounting or being accountable, or giving our attention to the situation appropriately.

Discounting and Accepting Strokes 20 min.

Stroke is another word for attention. There are negative and positive strokes and they may be verbal, nonverbal and physical. Examples of positive strokes are saying nice things to someone, praising him or her, acknowledging an accomplishment, giving someone a hug, smiling warmly at someone.

One of the most common ways we discount, give up personal power or deny ourselves access to it, is by discounting the positive strokes we get. For example, if someone says "you really did a good job" and we say, "Oh, it was nothing," we have discounted a positive stroke by demeaning what we did. We could accept the stroke by a simple thank you and by believing that the person was sincere in offering the stroke. Also stop thinking disparaging, discounting thoughts about ourselves.

The following exercise will give students an opportunity to experience what it is to discount all strokes and then to accept them. (No materials required.) Instructions

Divide into groups of four or five. "We are going to do an exercise in which, first we discount all the strokes we get, and then we accept all the strokes we get. Each of you is to give a positive stroke to everyone else in your group. Find at least one thing that you like about each person and given them a positive stroke for that. Some examples are " I think you hair is pretty, I think you are really smart, etc. As you receive each stroke, discount it, or deny it, and do not accept it. For example: Oh my hair is dirty, or I'm really not that smart, I just got lucky."

Every student in each group is to give strokes to everyone else in the group as they discount the strokes.

Discussion

How did you feel as you gave strokes? Was it hard or scary? How did you feel when your strokes were discounted? How did you feel as you discounted the strokes you got? Do you ever discount the strokes you get at home, at school, or with your friends? Do you know of others who discount strokes? Why do you think we sometimes discount the strokes we get?

Instructions

Now get back into different groups. Do the same exercise, each person gives positive strokes to everyone else in the group, but this time they are to accept all strokes. This may be more difficult than discounting them. As you receive a stroke, be as open and accepting as you can be. If you find that you want to argue with what the person has said, or putting yourself down in your own mind, then accept that you have those thoughts and accept the stroke anyway. You can accept with a simple thank you or smiling, or nodding at the person. Then take a few seconds to love and appreciate yourself for who you are.

Discussion

How did you feel as you accepted all the strokes that you got? Was it hard to accept some strokes? Did you find yourself wanting to argue with or deny the strokes? How did you feel as you gave strokes? What differences were there between discounting strokes and accepting them? Do you usually accept strokes that others give you or do you discount them (Hendricks & Roberts, 1977)?

Mind Reading - over reacting 8 min.

A lot of overreacting or overadapting is based on the belief that we can read the minds of others, and know what someone else is thinking and wanting to do. We do pick up many cues from the tone of voice, facial expressions, body posture, gestures etc., and many times we can accurately figure out what they feel. However, sometimes we misinterpret, and even if we are accurate, we cannot know why they are feeling a certain way.

When we overreact, we do or feel what we think someone else wants us to, regardless of whether that makes sense or not, and regardless of what we want or need to do. Therefore, overreacting, usually results in ineffective, in appropriate and sometimes destructive behavior. (Materials needed are paper and pencil.)

Instructions

This can be presented as a game in which they try to read minds. Have each student pick another student in the room and try to figure out either how the person is feeling at that moment or what that person is thinking, or what he or she wants of them. Have the students write down their mind readings. After they have done this, have them talk to the other student and find out if they were right or wrong.

Discussions

Discuss whether people can really read minds. What kinds of clues do we get from them that tell us something about their feelings or thoughts? How do we guess about what someone wants or expects from us? Are we always right? How could we find out if we're right? Ask them to think of times when they have tried to read their parents' minds, or other peoples'. What kinds of things do they do because they think someone else wants them to? Does it work to try to do what we think someone else wants us to do?

Sometimes we are right and sometimes we are wrong. When we pick up clues from people, we can check those out to find out whether we are correct. When we are clear about the messages that people send us, then we can decide what we want to do about it. Sometimes others want us to do things that aren't good for us, doesn't make sense or aren't things that we like to do. Can you think of an example when someone wanted you to do something that would have created problems for you or gotten you in trouble (Hendricks & Roberts, 1977).

Regaining Personal Power — 25 min.

We learn feelings of powerlessness as children, by means of the rescue game. This game is based on the belief that people can't really be helped and can't help themselves. The game is based on discounting: the "I can't help myself" is the self discount position; the "People can't be helped or help themselves" is the discount of others position. When we operate from these assumptions, the rescue game is in full operation. The three roles of the Rescue Game are Rescuer, Persecutor, and Victim (Karpman, 1968). The Victim's position is "I am helpless and can't help myself; try to help me." The Rescuer's position matches the Victim's, "You are helpless and can't help yourself; but I'll try to help you." The Persecutor's position is: "You are helpless and it's your own fault." The more powerless we feel, the more we don't think, don't act effectively, don't enjoy ourselves, don't understand or deal with the world and don't love.

The following exercises and strategies help students regain their power and stop the Rescue Game.

Instructions

"We're going to act out something called the Rescue Game. Divide into groups of three. Each one of the three will play a role. One of the roles is the Persecutor or bad guy. He or she is mean, picks on the Victim, and thinks the Victim is helpless. Another role is the Victim. He or she acts helplesss, like a poor thing who can't take care of him or herself. The other role is the Rescuer. He or she acts like the good guy who takes care of the Victim and solves the Victim problem." Note that the Rescuer is not really the good guy, but acts as if he is. Make very clear the problems caused by Rescuer.

"Here is the situation: or an example, use another situation if you like. The Teacher (Persecutor) blames the student for throwing spitwads at her, and he or she really didn't do it. The Victim acts helpless and guilty and doesn't even try to tell the teacher what really happened. Another student (rescuer) jumps in and explains what happened, saving the Victim from being in trouble.

Discussion

Disucss how they felt as they played these roles. Do they ever act this way in real life? Which role do they usually play? Do they ever see other people play these roles?

Instruction

Now, have them act out the same situation again, but this time all three players think, take care of themselves, ask for what they want, own their own behavior. (Help monitor so they don't slip back into the Rescue Game.)

Discussion

Discuss the difference in the way the players acted this time. How did they feel while being effective, thinking for themselves, and taking care of themselves (Hendricks & Roberts, 1977)?

Week 6

Inclusion, control and affection 10 min.

The need for inclusion is the need people have to keep a satisfactory relationship between themselves and others with respect to interaction or belongingness. This is the membership issue of groups. Some people like to be with other people all the time; others seek much less contact, preferring to be alone and keep their privacy. Membership behavior has two aspects: trying to include other members in what is taking place within the group, and wanting other members to try to include you. Because inclusion involves the process of forming relationships, it usually comes first in the life of a group. A person with little need for inclusion may be called undersocial; he tends to be introverted and withdrawn. The oversocial person is the opposite extreme; she/he tends toward extroversion.

Control problems usually follow those of inclusion in the development of a group. Once a group has formed, it begins to differentiate among members. Different people take or seek different roles, and often power struggles and influence become central issues. The need for control is the need people have to keep a satisfactory relation among themselves with regard to power of influence. Every person has a need to control his environment to some degree, so that it will be predictable for him. Ordinarily, this amounts to controlling others, because people are the main agents that threaten an individual's environment and create an unpredictable and uncontrollable situation. This need for control varies from those who want to control their entire environment, including all the people around them to those who want to control no one in any situation, no matter how appropriate control would be.

Affection is based on the building of emotional ties. As a consequence, it is usually the last phase to emerge in the development of a group. The need for affection is the need a person has to keep a satisfactory relationship between himself and other people regarding love and affection. At one extreme are people who like close, personal relationships with every person they meet. At the other extreme are those who prefer their personal relationships to be quite impersonal and distant, perhaps friendly, but not close and intimate. Affection also has two aspects: the degree to which a person expresses affection toward others, and the degree to which a person wants others to express affection toward him. In a group the issue is one of feeling valued and respected; being accepted is a vital part of membership in a group.

Inclusion Exercise

After the group has had some time together, indicate that the center of the room is for those who definitely feel a part of this group. Have group members place themselves in the room in relation to how they feel. To obtain further information, ask them to stand nearest the people to whom they feel closest. They should then share feelings and perceptions about the placements.

When someone indicates he feels excluded from the group, ask the group to stand in a circle with arms around one another's waist. The excluded person is outside the circle and is instructed to try to get inside. After he succeeds in doing so--or after he tries very hard to do so--discuss his feelings of trying to get inside the circle. Have the participants exchange views on what they learned about the group and how it deals with inclusion and exclusion.

Control Exercise

Ask group members to stand in a circle and touch fingertips with the person on either side of them. Then ask each member to pick a spot in the room to which she would like the group to go. Make it clear to the group members that they must keep fingertip contact and that they may not talk. At the signal, everyone tries to get the group to her/his chosen spot. Discuss what was learned about the group and how it deals with the control issue.

Affection Exercise

1. Ask each group member (small group) to think of an imaginery, meaningful gift for each of the other members. Each member describes the gifts she/he has selected.

2. Ask group members to focus on one another with three statements (1) When I look at you I see . . . . (2) I wish you would . . . . and (3) What I really like about you is . . . .

Trust Building Behavior 10 min.

(Small Groups) Participants are to take slips of paper (one for each member of the group) and write on them (1) Openness and sharing and (2) Acceptance and support. Each group member should fill out a slip on every other group member by giving them ratings between 1 and 7 on the two

dimensions (Low 1 2 3 4 5 6 7 High). The exercise aims at providing a comparison between the way in which you see your trust building behavior and how it is seen by others Ex. (1) Openness and sharing 1 (2) Acceptance and support 7. Each slip should contain the person's name. Collect the slips of paper and sort them by name of member to receive the feedback. Compute a group mean for each member by adding the number together for each of the dimensions and dividing the totals by the numbers of slips of paper. Then give the group members their means and have them draw the means (using dotted lines) on the trust diagram (Johnson & Johnson, 1975).

Expressing Support Exercise

Every group member has considerable positive qualities and resources that can be used to faciliate the accomplishment of the group's goals. Group cohesion and trust are increased when these positive qualities are recognized and used. The following exercise is aimed at increasing group members awareness of own and other's positive resources. The procedure for the coordinator is as follows:

1. Introduce the exercise as an opportunity to increase awareness of the positive resources available in the group. Positive resource refer to any skill, talent, ability, or personal trait of a member that helps the group accomplish its goals.

2. Ask each member to think of all the things she or he does well, all the things that you are proud of having done, all the things for which you feel a sense of accomplishment. Each of the members are to list all the positive accomplishments and successes of the past.

3. Ask each member to share the list with the group. Group members are to help each other identify the positive resources used to accomplish past successes. Group members are then to add any other positive resources they perceive the person to have. A final list of positive resources is made for each group member.

4. Each member next asks the group what might be keeping her from using all her positive resources. The group then explores the ways in which each member can free him or herself from factors that limit the use of positive resources.

5. The group then reviews its current goals and tasks. A discussion is held which focuses upon how the group can effectively use the positive resource of members to make it easier to accomplish the group's goals (Johnson & Johnson, 1975).

Week 6

Rescuing 10 min.

Instructions

Have students get into groups of four or five. Ask for one volunteer in each group to play the role of Victim. The others will be Rescuers who are going to try to help the Victim solve a problem. The Victim is to present a problem to the group, either a made-up problem or a real one. After the Victim explains the problem, the Rescuers are to come up with all the suggestions they can think of for solving the problem. The victim is to respond to each suggestion by saying, "Yes, but . . . ." and then giving reasons why that suggestion can't possibility work, or why he or she can't possibly do what is suggested.

Allow about seven minutes for this or until the Rescuers are thoroughly frustrated and angry.

Discussion

Discuss what happened. How did the Rescuers feel as they worked so hard to try to solve the Victm's problem, only to have the Victim discount all suggestions? Have they ever experienced something like this in real life? Is it possible to solve someone else's problem, especially when they aren't doing anything to solve it themselves (Hendricks & Roberts, 1977).

Regaining Personal Power Over Feelings 10 min.

There is a difference between thoughts and feelings. Thoughts are what we think about feelings, our opinions, our conclusions, what we understand or figure out about what we see and experience. Feelings are angry, scared, sad, happy and excited. In general the phrase "I feel" should be followed by words such as frightened, happy, angry, sad, or excited, whereas "I think" expresses our opinions about feelings, events, or facts; or our conclusions or understandings about various situations.

Language and the way we use it can reinforce either a position of passivity or powerlessness, or one of personal power and responsibility. In order to become

conscious of how we use words, we need only to listen to ourselves. By using passive language, we reinforce our own notions of being stuck in certain situations. If we believe that certain things are "making" us feel certain ways and this is reflected in the language we use to describe it, then this reinforces the notion that we do not have control over our feelings, and we give up our personal power and give others control over how we feel. For example: "She really made me mad," or "You hurt my feelings," or "Roller coasters scare me." The fact is that we have innumerable ways to respond to people and situations and we are in control of how we feel. We can choose to think and act and feel differently. We can change the statements to reflect personal power and personal responsibility by saying instead, "I really felt angry with her," or "I feel hurt," or "I'm afraid of roller coasters." These remarks reflect that I am in control of how I feel and that I take responsibility for feeling the way I do, rather than pretending it's someone else's faulty. When we realize that we are in control, we have the freedom to feel the way we do or choose to feel differently.

The following exercise is designed to help students own and take responsibility for their feelings.

Instructions

Have the students get into small groups of four or five. Then "Think of a situation in which someone made you angry. Describe what they did and how that made you feel. Everyone in each group take a turn doing that."

"Now, decribe the same situation again, but this time, after you describe what the other person did or said, own the fact that you chose to be angry and say, "I chose to be angry." In your groups, think about and discuss what you could have done or have chosen to feel instead of anger." Ex. "I could have ignored her," or "I could have walked away."

Discussion

Discuss the exercise with the students and how they felt as they did it. Do they really think someone else can make them feel? Discuss the importance of owning our feelings and taking responsibiltiy for them.

Repeat this exercise with other feelings if time permits. You can also use this information to help students own their feelings and take respnsibility for how they feel during their daily activities. Remind them to use "I" statements and not to say, "make me feel" (Hendricks & Roberts, 1977).

APPENDIX C

PERMISSION TO TEST

GUTHRIE JUNIOR HIGH SCHOOL
GUTHRIE, OKLAHOMA 73044

PERMISSION TO TEST

Date_____

Name of Student_____

We the parents of _____ give our permission to have our child tested with tests that are appropriate for research in the area of assigning causes of behavior in peer relationships by Cecelia M. Franke, a doctoral level student in School Psychology at Oklahoma State University.

Signed,

_____

_____

_____

In the event that our child is selected to participate in the reserch program, we also give permission to have our child participate in this research program.

Signed,

_____

_____

_____

RETURN BY_____

APPENDIX D

KUDER RICHARDON COEFFICIENTS OF INTERITEM CONSISTENCY OF PRE AND POST TESTS OF THE ACAC

TABLE XXXXIX

KUDER RICHARDSON COEFFICIENTS OF INTERITEM CONSISTENCY OF PRE AND POST TESTS OF THE ACA

	Ability	Effort	Task Difficulty	Luck
Pre	.3071	-.1366	.6023	.3339
Post	.4714	.3330	.5860	.3474

VITA

Cecelia Marie Franke

Candidate for the Degree of

Doctor of Philosophy

Thesis: A COGNITIVE-AFFECTIVE CHANGE PROGRAM TO ALTER ATTRIBUTIONS OF RESPONSIBILITY IN PEER RELATIONSHIPS

Major Field: Applied Behavioral Studies

Biographical:

Personal Data: Born in Cashion, Oklahoma, March 11, 1936, the daugher of Mr. and Mrs. H. P. Casey.

Education: Graduated from Benedictine Heights High School, Guthrie, Oklahoma, in May 1954; received the Bachelor of Science degree in Special Education from Central State University in 1972; received a Master of Education degree in Counseling Psychology from Central State University in 1977; completed certification requirements for School Psychology from Central State University in 1979; enrolled in doctoral program at Oklahoma State University, 1979-82, completed requirements for the Doctor of Philosophy degree at Oklahoma State University, in July 1982.

Professional Experience: Special Education teacher in the Guthrie Public Schools, 1972-74; a semester of practicum experience, Logan County Guidance Center, Guthrie, Oklahoma, 1976; a semester of practicum experience with Juvenile Court, Oklahoma County, Oklahoma, 1976; a semester of practicum with Special School Services, Central State University, 1978; an intership for two semesters with Special School Services, Central State University, 1979; graduate teaching assistant, Applied Behavioral Studies, Oklahoma State University, 1979-80.