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A COMPARATIVE STUDY OF TENDENCIES TO ASCRIBE
LOCUS OF RESPONSIBILITY FOR INTELLECTUAL
ACHIEVEMENT BETWEEN TWO GROUPS
OF MIDDLE SCHOOL STUDENTS

By

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Teacher Education

1986

ABSTRACT

A COMPARATIVE STUDY OF THE TENDENCIES TO ASCRIBE LOCUS OF RESPONSIBILITY FOR INTELLECTUAL ACHIEVEMENT BETWEEN TWO GROUPS OF MIDDLE SCHOOL STUDENTS

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The focal point of the study was to investigate if statistically significant differences existed between two groups of students--those identified as "Emotionally Impaired," and those identified as "Regular"--in terms of their ascriptions of locus of responsibility regarding both academic successes and failures.

The two groups of students, ages twelve to fifteen, were: a group who were not "Emotionally Impaired" were for purposes of this study identified as "Regular" (n=27). The other group, drawn from the same population, had been identified as "Emotionally Impaired" (n=21) according to criteria established by P.L.

94-142. Both groups attended middle school in a midwestern city.

The Intellectual Achievement Responsibility Scale was the tool used in estimating students' beliefs. A high score represents internal responsibility, a low score, external responsibility. The values of t test were computed to determine if statistically significant differences existed between groups on the means compared. The values of z-score for items' proportions were computed to determine if there were statistically significant differences between the two groups on each item.

According to study findings, no statistically significant differences existed between the "Emotionally Impaired" and the "Regular" groups in terms of their locus of responsibility ascription. Statistically significant differences ($\alpha=.05$), or differences close to being significant ($\alpha=.07$), between the two groups were found on eleven of thirty-four items. Examination of these item-by-item differences displayed a possible tendency for greater proportions of EI students to ascribe locus of responsibility for intellectual achievement to external sources.

DEDICATION

To my parents, Sara and Isa, who gave a lot of their time struggling to help their children get the best and highest education possible, despite the poor conditions and circumstances they were passing through. To my brothers Ahmed and Mahmood, who sacrificed for their younger brothers.

ACKNOWLEDGEMENTS

I would like to extend my faithful gratitude to Dr. Ben Bohnhorst, whose unrestrictive and yet instructive supervision and guidance helped create this dissertation. I also would like to thank my committee members, Dr. Charles Blackman and Dr. Kenneth Neff, for their encouragement. Special thanks to Dr. Eugene Pernell who taught me twice, first when he made me take the comprehensive, and second when he asked me to reformat this dissertation according to the A.P.A. style. Special thanks to the Ministry of Education in the United Arab Emirates, and ex-minister of education Mr. Saeed Salman for their generous scholarship, and Dr. Aysheh Alsayyar and colleagues in the department of educational services. My gratitude to the Barhoum family, especially Yousef and Mohammad. I would like to extend my thanks to my brother Khalil, his wife, Ann Francis Barhoum, and their daughters Laura and Nadia for their encouragement. Finally to my editor Terry Schmit, for her editorial assistance. I would like to thank Marilyn Higgins for her help, and the student coordinator and the teachers who helped with this document.

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CHAPTER I

INTRODUCTION

Purpose of the Study

This study contains findings comparing the data gathered from two subsamples of middle school students. The data were collected in November 1985 from a school in a midwestern city (150,000+ population) in the United States.

The sample of students, forty-eight in number, was between the ages of twelve and fifteen years. Of these, twelve were female, and twenty-six were male. Ten did not specify their sex.

The subsamples of primary interest to this study, however, were (a) a group of twenty-one students who had been identified as "emotionally impaired" (EI) in accordance with provisions of P.L. 94-142, and (b) a group of twenty-seven students from the same school who had not been so identified. The EI students were recipients of specially designed programs, whereas the other twenty-seven students received the "regular" curriculum of the

school. The latter will hereinafter be referred to as regular (REG) students.

A considerable body of research and theory had been developed by 1985 regarding effective programming for EI students. No previous study, however, had investigated whether EI students differed from REG students in their tendencies to ascribe responsibility for their academic intellectual successes and failures to "internal sources" (e.g., their own abilities, efforts, or capacities) or to "external sources" (e.g., luck, environment, teachers, etc.).

The chief intent of the present study has been to ascertain whether tendencies concerning these primary ascriptions differ between the EI and REG subgroups.

Statement of the Problem

If academic achievement correlates significantly with an internal view of one's own responsibility for, and effort involved in, intellectual achievement, then it may be possible to attribute disrupted educational performances among students identified as emotionally impaired to their external ascriptions. If the study demonstrated that students receiving special programming because of their identification as EI tended to make significantly more external ascriptions of intellectual achievement responsibility than do the REG students, this study might provide information that could impact

EI curriculum and instruction decisions. This could include programs for skills and experiences to increase the self-concept of EI students and reinforce the notion of a student's own efforts directly affecting success. Furthermore, if discrimination between the two groups regarding the internal/external ascriptions were made using the Intellectual Achievement Responsibility Scale by Crandall, Katkovsky, and Preston (1962), then this instrument might be considered for inclusion in the assessment battery identifying students who need to receive special help.

The hunch is that the student who perceives his/her responsibility for intellectual achievement as contingent on his/her own behavior tends to make better adjustments, is inclined to cope better with the environment, and such students do not as frequently show the characteristics which might label them emotionally impaired. On the other hand, the student who does not perceive his/her behavior to be responsible for intellectual achievement does not cope as successfully with his/her environment and tends frequently to exhibit the characteristics which may identify him/her as an emotionally impaired student.

The research challenge for this study revolves around discovering if there are discernible differences in ascribing a responsible source for one's intellectual

achievement. The EI and the REG student's orientations for academic success and failure were assessed using the Intellectual Achievement Responsibility Scale (IAR).

Research Questions of the Study

The major research question for the study is:

Are there significant differences in the ascription of intellectual achievement responsibility between two groups of REG and EI students, ages 12 to 15?

Both groups were attending a middle school in the midwest. Their responses were evaluated by the Intellectual Achievement Responsibility Scale (IAR).

Answers to the following specific questions concerning the sex of the respondents were also sought. The reason for including sex as an independent variable in this study is based on the fact, as revealed in the review of the literature which is reported in Chapter II, that sex has sometimes figured significantly in previous studies.

1. Are there significant differences between the males of the EI group and the males of the REG group?
2. Are there significant differences between the females of the EI group and the females of the REG group?
3. Are there significant differences between males and females of the EI group?

4. Are there significant differences between males and females of the REG group?
5. Are there significant differences between the males of the EI and the females of the REG group?
6. Are there significant differences between the females of the EI group and the males of the REG group?

Finally, the IAR test provides scores which are designated I+ (ascriptions of internal responsibility in positive situations) and I- (ascriptions of internal responsibility in negative situations). Analyses were made to see if EI and REG students differ on these two sets of scores as total subsets. Also z-test analyses were made of EI and REG responses to each item on the IAR scale.

The Rationale for the Study

The relevance for this study is underscored by the fact that programs designed to train children to alter their ascriptions for causes of failures have been successful, as stated by Dweck (1975). It would clearly be more efficient and effective, Dweck said, to prevent the development of self-defeating ascriptions and expectations in the first place.

The importance of the knowledge of the ascription trait is also stressed by Stipek and Hoffman (1980) who

suggested some educational implications. They say that it is virtually impossible in any classroom to avoid failure experiences for some children (particularly since failure is often defined in terms of relative performance). They claim it is also important that teachers encourage children to attribute their failures to factors over which they have control. They propose that it is possible to teach children to change their ascriptions for failure from ability to effort. Techniques to reverse children's ascription biases should be useful in preventing maladapted biases from developing in younger children. They also suggest that teachers begin to use these techniques from the onset of the students' experiences in academic settings.

Crandall et al. (1962) mentioned studies suggesting that reinforcement of responsibility beliefs hold the promise of being predictive of individual differences in reinforcement sensitivity, in attitudes, and in social behavior. Lawrence and Winschel (1975) also contended that internalizing the locus of control must become a conscious goal in the education of handicapped children. They go on to say that if handicapped children are to be educated within regular school programs, educators must maximize those intellectual and personal attributes which will facilitate their acceptance by age peers and increase their potential for academic success. They also

emphasize the importance of being aware of the developmental aspects of locus of control. They claim that awareness of the developmental aspects of locus of control is a crucial need for educators, and call on educators to promote this awareness in children, a necessity they consider a progression toward internality for both success and failure. They emphasize that we must help the child see the causal relationship between his performance and outcome and to assume responsibility for both.

If it can be determined which condition of action --ability, effort, intention, luck--is given the primary weight for academic achievement among emotionally impaired students, educators will be in a better position to determine the focus of educational intervention. It would be beneficial to know to what extent both EI students and REG students link their own intellectual achievement to external or internal forces. It would also be useful to know how each of these two groups differ in explaining their successes and failures.

Dweck and Reppucci (1975) saw that an instructional program for children who have difficulty dealing with failure would do well not to skirt the issue by trying to insure success or by glossing over failure. Instead, it should include procedures for dealing with this problem directly. They do not suggest that failure should

be included in great amounts or that failure, per se, is desirable; rather, that errors should be capitalized on as vehicles for teaching the child how to deal constructively with failure.

If the above claims are valid, information about the existence of external ascription of intellectual achievement among EI students would presumably be useful to the special education educator in planning interventions. Such information should indicate whether the focus of education should be directed toward ability, effort, redesigning the task, or toward all of these factors. The basic notion would be that if the person perceives himself/herself as externally controlled, then the emphasis of education should be directed toward equipping the child with an internal locus of control, alleviating self-responsibility for failure and attributing it to insufficient effort, and teaching him/her to perceive a causal relationship between one's own behavior and the occurrence of the event.

Need for the Study

Since little research is available on comparing the ascription trait between EI students and REG students, it appeared that a study of the nature of the students' ascriptions would be worth pursuing. It is important that EI students be assessed on this trait and compared

to REG students. An attempt to make valid generalizations about the nature of their ascription trait would also be beneficial.

The results, if positive, might prove to be valuable in the following ways:

1. Data obtained from this study could serve as a basis for curriculum modification, focusing on internality in specific areas. It could also have implications for curriculum development, instructional methods, and counseling.
2. The data concerning the ascription trait could be utilized in training programs.
3. Data derived from this study could provide helpful insights and information to special educators in general.
4. This study could add to basic understanding of the nature of students' ascriptions and their perceptions of their reinforcements, both intrinsic and extrinsic.
5. This study may encourage Arab educators to investigate the ascription trait among Arab students, especially since some educators, like Al-Azem (1969), referred to the phenomena of external locus of responsibility as a chronic sickness in the Arab world. Also, a scale for adults was standardized by Barhoum (1979) and it

is in use in Jordan. Tillman and Lord (1975) also employed a modified revision of the locus of control scale to consider the origins and sources of control orientations by comparing subjects' scores along demographic dimensions between two Egyptian and Tunisian samples.

6. Finally, the findings could inform and alert educators to possible Intellectual Achievement Responsibility differences between an EI and REG student and help avoid any stereotypical behaviors that might deter both educators and learners from functioning appropriately.

The Hypotheses

The difference between the EI students and the REG students in their ascriptions of intellectual achievement responsibility is worth pursuing. It is possible that students exposed to emotional problems would be different from the REG, resulting in differences in their ascriptions of responsibility for both academic success and failure. Thus, the major null hypothesis for this present investigation would be:

- H01: There are no significant differences (at .05 level of significance) between groups of EI and REG students in their mean scores concerning their perceptions of intellectual achievement responsibility.

Additional null hypotheses regarding sex differences are as follows:

- H02: There are no significant differences (at .05 level of significance) between the males of the EI group and the males of the REG group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).
- H03: There are no significant differences (at .05 level of significance) between the females of the EI group and the females of the REG group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).
- H04: There are no significant differences (at .05 level of significance) between the males and females of the "emotionally impaired" group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).
- H05: There are no significant differences (at .05 level of significance) between the males and females of the REG group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).
- H06: There are no significant differences (at .05 level of significance) between the males of the EI group and the females of the REG group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).
- H07: There are no significant differences (at .05 level of significance) between the females of the EI group and the males of the REG group in their mean scores on the Intellectual Achievement Responsibility Scale (IAR).

Finally, null hypotheses regarding I+/I- scores and z-test analyses of each item are as follows:

- H08: There are no significant differences (at .05 level of significance) between EI and REG students in their Mean I+ scores on the IAR.
- H09: There are no significant differences (at .05 level of significance) between EI and REG students in their I- scores on the IAR.
- H10: There are no significant differences (at .05 level of significance) between EI and REG students on each of the particular items in the IAR.

Limitations of the Study

The extent to which the findings can be generalized is restricted by the following limitations:

1. The sample is limited to a particular selection of students enrolled in one middle school in the midwest in 1985.
2. The assessment of the students' beliefs of Intellectual Achievement Responsibility is limited to the students' mean scores derived from their performance on the IAR scale, and the computation of a t test to examine the differences between the means.
3. The identification of the samples is limited to the school's system of sorting out the students and its placement procedures.
4. The student's awareness of his/her participation in the study may have affected his/her answers.
5. The length of the questionnaire may have affected the students' responses.
6. The school district understandably would not allow the writer to administer the (IAR) scale on an individual basis because of undue intrusion into school activities.
7. It was assumed that students would respond to all the items in the IAR as intended by the test designers. This assumption proved not to be

correct under the conditions of test administration. Hence it may be (one cannot tell for sure) that this shortcoming prevented, perhaps in part, the discovery of differences between EI and REG students. Nevertheless, the data which were obtained were analyzed to try to discern what they had to reveal.

Definition of Terms

Terms in this study requiring definition are the following:

Achievement behavior, as defined by Crandall et al. (1965), is any behavior directed toward attaining approval or avoid disapproval (the goal of the behavior) in respect to competent or incompetent performances (the attribute of the behavior is either rewarded or punished) in situations where standards of excellence are applicable (the unique characteristic of achievement situations).

Determination of Emotionally Impaired, is measured by the Revised Special Education Rules (R 340.1706). They define the emotionally impaired as follows:

1. The emotionally impaired shall be determined through manifestation of behavioral problems primarily in the affective domain, over an extended period of time, which adversely affect the person's education to the extent that the person cannot profit from regular learning experiences without special-education support. The problems result in behaviors manifested by one or more of the following characteristics:

- a. Inability to build or maintain satisfactory interpersonal relationships with the school environment.
 - b. Inappropriate types of behavior or feelings under normal circumstances.
 - c. General pervasive mood or unhappiness or depression.
 - d. Tendency to develop physical systems associated with personal or school problems.
2. The term "emotionally impaired" also includes persons who, in addition to the above characteristics, exhibit maladaptive behaviors related to schizophrenia or similar disorders. The term "emotionally impaired" does not include persons who are socially maladjusted, unless it is determined that such persons are emotionally impaired.
 3. The emotionally impaired shall not include persons whose behaviors are primarily the result of intellectual, sensory, or health factors.
 4. A determination of impairment shall be based on data provided by a multidisciplinary team, which shall include a comprehensive evaluation by both of the following:
 - a. A psychologist or psychiatrists.
 - b. A school social worker.
 5. A determination of impairment shall not be based solely on behaviors relating to environmental, cultural, or economic differences.

Emotionally disturbed, is defined according to the

United States Office of Education as follows:

1. An inability to learn that cannot be explained by intellectual, sensory, or health factors.
2. An inability to build or maintain a satisfactory interpersonal relationship with peers and teachers.
3. Inappropriate types of behavior or feelings under normal conditions.

4. A general, pervasive mood of unhappiness or depression.
5. A tendency to develop physical symptoms, pain, or fear associated with personal or school problems.

Normal population, is defined as those students who are attending regular classes and progressing through the educational system without prior referral for special needs. The students in this study identified as REG would be included in this population.

Locus of Control, falls within the framework of Rotter's Social Learning Theory. Locus of Control (LOC) refers to the degree to which an individual perceives that the outcome of events are a result of his/her own actions (internal control) or determined by outside factors, such as fate, luck, or other people (external control). Therefore, internal locus of control refers to the individual's tendency to ascribe responsibility for reinforcement to self, and external locus of control refers to the ascription of responsibility to outside factors, such as luck, powerful others, the "system," and so on.

Behavior potential, may be defined as the potentiality for any behavior to occur in any given situation relative to any single reinforcement or set of reinforcements.

Expectancy, is the individual's perception that a particular reinforcement will occur as a result of

specific behavior on his/her part in a certain situation or situations. Expectancy is systematically independent of the value or importance of the reinforcement.

Reinforcement value, of any one (of a) group of potential external reinforcements may be ideally defined as the degree of the person's preference for that reinforcement to occur if the possibility of occurrence of all alternatives were equal.

I+ and I- Scores on the IAR, I+ is a subscore provided by the IAR which measures the child's ascription of responsibility to himself as responsible for the reinforcement he receives in positive intellectual achievement situations.

I- is a subscore provided by the IAR which measures the child's ascription of responsibility to himself as responsible for his reinforcement in negative intellectual achievement situations.

Overview of Remaining Chapters

This chapter presented the purpose of the study, the statement of the problem, the research questions, the rationale for the study, the need for the study, the hypotheses, the limitations, and the definition of terms. The second chapter gives the theoretical framework and the related literature. In the third chapter the design of the study is presented. The fourth chapter cites the results of the analyses. The

fifth chapter includes the summary, discussion, and recommendations for future research.

CHAPTER II

BACKGROUND OF THEORY AND RESEARCH

Introduction

This chapter is divided into five sections. The first discusses in detail the theoretical framework of the social learning theory which is used as a basis for this present study, including some studies which are in line with the theory. The second section focuses on the studies which related locus of control to emotional disturbance. The third summarizes some studies dealing with the relationship between locus of control and learned helplessness. The fourth reports some of the studies which propose intervention techniques, and the fifth discusses some of the studies involving use of the Intellectual Achievement Responsibility Scale.

Section One: Social Learning Theory Framework

A specific base for this research is Rotter's social learning theory (Rotter, 1972). There are six general principles for this theory which essentially state the rules by which scientists proceed to study human behavior and to gain an understanding of the human personality.

1. The unit of investigation for the study of personality is the interaction of the individual and his/her meaningful environment.
2. Personality constructs cannot be depended on for an explanation of constructs in any other field (including physiology, biology, or neurology). Scientific constructs for one mode of description should be consistent with constructs in any other field of science, but no hierarchy of dependency exists among personality constructs and those in other fields.

Behavior, as described by personality constructs, takes place in space and time. Although all such events may be described by psychological constructs, it is presumed that they may also be described by physical constructs, as they are in such fields as physics, chemistry, and neurology. Any conception that regards the events themselves, rather than the description of the events as different, is rejected as dualistic.

3. Not all behavior of an organism may be usefully described with personality constructs. Behavior that may be usefully described by personality constructs appears in organisms of a particular

level or stage of complexity and a particular level or stage of development.

4. A person's experiences (or his interactions with his meaningful environment) influence each other. Otherwise stated, personality has unity.
5. Behavior, as described by personality constructs, has a directional aspect. It may be said to be goal-directed. The directional aspect of behavior is inferred from the effect of reinforcing conditions.
6. The occurrence of a behavior of a person is determined not only by the nature or importance of goals or reinforcements, but also by the anticipation or expectancy that these goals will occur. Such expectations are determined by previous experience and can be quantified.

It is in Rotter's social learning theory that perceived control occupies a central theme within a systematic formulation. Rotter (1966) refers to perceived control as generalized expectancy of internal or external control of reinforcement. From his view, the role of reinforcement, reward, or gratification in the determination of human behavior is a significant one in the acquisition and performance of skills and knowledge. Such effects of reinforcement do not follow from a stamping-in process, at least with human beings. The

effects depend on whether or not the person perceives a causal relationship between his own behavior and the reward.

Rotter (1975) and his colleagues have presented considerable evidence that people learn differently in situations where rewards depend on chance or luck than they do in situations where they perceive that skill or their own characteristics determine whether or not reinforcement will occur. He believes that the perception of causal relationship need not be all or none, but can vary in degree. He also hypothesized that the locus of control variable is of major significance in understanding the nature of the learning process in different kinds of learning situations and also that consistent individual differences exist among individuals in the degree to which they are likely to attribute personal control to reward in the same situation.

Rotter's (1966) focus is on the expectancy that the behavior will lead to the reinforcement. He stated that if one individual is subjected to a series of situations in which he has less control than another, then these expectancies for lack of control would become generalized, at least to some degree. Consequently, there may well be significant and important individual differences in the degree to which people see their own lives as determined by their own behavior and characteristics or

see their own lives as controlled by luck, chance, fate, or powerful others. In other words, people may differ in dimension of generalized expectancy for internal versus external control reinforcement. Rotter hypothesizes that the development of a person's locus of control orientation depends on the individual's reinforcement history, both painful and pleasurable. Individuals would, then, differ in the degree to which reinforcements were attributed to his/her own actions.

Rotter (1966) also hypothesizes that when the reinforcement is seen as not contingent on the person's own behavior, then its occurrence will not increase an expectancy as much as when it is seen as contingent. He contends that a generalized attitude, belief, or expectancy regarding the nature of the causal relationship between one's own behavior and its consequences might affect a variety of behavioral choices in a broad band of life situations. He also presents a number of psychological variables which appear to bear some relationship to the concept of the belief in internal versus external control of reinforcements. The first of these major conceptions is that of need for achievement. Rotter sees that the work of many researchers with adults and children suggests that people who have a great need for achievement, in all probability, have some belief in their own ability or skill to determine

the outcome of their efforts. The second variable, which may bear some genuine relationship from his point of view, is the concept of "field determined" versus "body oriented." He perceives that the work of many researchers suggests that people can be ordered on a continuum in some perception experiments, describing whether they derive most of their cues from the field or from internal sources. The third conception is the notion of "ego control." This concept from Rotter's point of view is considered as less clear and not always defined similarly. It seems to contain the ideas of confidence and ability to deal with reality.

The point of view of Roueche et al. (1982) was in line with Rotter when they said that individuals build up expectations about the degree to which they control events and then generalize these expectations to their entire life situations, depending on the overall patterns of their existence. Repeated specific failures make people expect to fail at everything, but if people experience early successes at controlling outcomes, they expect to continue to be successful and are most dismayed by an associated failure.

It might appear that getting a reward or reinforcement as a result of putting out some effort would later lead to more active efforts. The person would be motivated to repeat a similar act and expect to receive

the same reward or positive reinforcement again. Thus, he may build a belief in an internal locus of control. On the other hand, the student who believes that luck and external forces control his/her other reinforcements will tend to yield to this idea of helplessness and not be as likely to try again.

The concept of Crandall et al. (1962) regarding personal beliefs seems similar to the previous mentioned notions. They perceive these personal beliefs to be important determiners of the reinforcing effects of many experiences. As an example, they cite the individual who is convinced that if he/she had little control over the rewards and punishments received, then he/she has little reason to modify behavior in an attempt to alter the probability that those events will occur. Because rewards and punishments will have lost much of their reinforcing value, they will not be as effective in strengthening or weakening the subject's response.

The relationship between the individual's behavior and the occurrence of certain events was also emphasized by other researchers (Dweck & Reppucci, 1975). They contend that cognitive-personality variables, such as the manner in which a person perceives the relationship between his/her behavior and the occurrence of certain events, indeed appear to be important determinants of the way in which people react to events.

This sort of linkage between the individual's behavior and the expectancy of the reward would appear to play a crucial role in our own daily lives, mainly in the learning process. It influences our future behavior and may explain why a certain student believes that regardless of whatever effort he/she puts out, there will be failure. The student is certain that external forces are the determiners of behavior and thus ascribes failure or even success to those forces rather than to himself/herself.

It may be more important for the individual to develop a belief in his/her own ability rather than a belief in luck, especially if the student believes that the more effort put forth, the better the results. Believing that it is the individual's responsibility if one fails or succeeds may be much better than ascribing the responsibility to others. This, in fact, is in line with Phares' (1976) point of view, which suggests that an internal belief system should lead to reactions of pride following success or to a variety of negative emotions following failure. In either case, the effects on subsequent behavior could well be positive. The belief system of externals, however, denies one an emotional experience, thus providing one little basis for the pursuit of excellence. After all, if one ascribes success to outside forces, why would one either

take pleasure in the attainment of success or make further efforts to achieve it?

Roueche and Mink (1982) summarized some of the results showing that internality, compared to externality, results in greater health and personal potency. Internals have a higher self-concept than externals; they are also generally better adjusted, more independent, more successful and more realistic in their aspirations, more open to new learning, more creative, more flexible, and more self-reliant. The internals also show more initiative and effort in controlling their environment, are less anxious, earn higher grades, and show more interest in intellectual activity and achievement.

Al-Azem (1969) focuses on the ascription trait and the domination of externality among Arab students when he mentions the street-wise (shirker) Arab student who fails but does not blame himself; instead, he blames his luck, the teacher, difficult questions, the government, discipline, God, etc. From Al-Azem's point of view, this trait which is characteristic of the Arab student is also characteristic of the Arab nation. He goes on to say that when the Arab nation is defeated, it blames the enemy, colonialism, treason, luck, and whatever else comes to mind, instead of probing the internal origin of the failure and extracting it.

Section Two: Locus of Control and Emotional Disturbance

The ascription of responsibility idea falls under the concept of locus of control discussed by the social learning theorists. The literature in this field is replete with studies and research designed to define its meaning, as well as implications for the process of learning and the classroom setting. Some of the literature shows a concern over the relationship between locus of control and behavior disorders.

The number of studies concerning the relationship between emotional impairment and locus of control are minimal. Finch, Nelson, Montgomery, and Stein (1975) compared impulsive emotionally disturbed children with reflective, emotionally disturbed children according to their perceived locus of control. They intended to form a relationship between the cognitive dimension of reflection-impulsivity and locus of control by hypothesizing that the reflective child would be more internal in his/her locus of control than the impulsive child. The results of their study, however, did not indicate any significant differences between children employing an impulsive style and those employing a reflective, cognitive style regarding locus of control.

In another study conducted by Finch, Kendall, Deardorff, Anderson, and Sitarz (1975), the researchers examined the relationship among three variables:

reflection, impulsivity, and locus of control in a group of emotionally disturbed children. Results indicated that children who were more internal responded more slowly and made fewer errors on the Matching Familiar Figures Test. Also, the older they were, the more persistence they displayed when taking the test. The variables of locus of control, persistence behavior, and reflection-impulsivity were related to each other and to a problem-solving approach. Girls responded more slowly on the Matching Familiar Figures Test than boys. Individuals who were more external responded faster and made more errors on the Matching Familiar Figures Test.

Finch, Deardorff, Sitare, and Anderson (1975) investigated the effects of the affective relationships based on locus of control and imitative behavior. They exposed twenty-eight boys to their most liked and least liked peers, utilizing a simple imitative task. A significant correlation was found between the observer's locus of control (internality score) and the number of limitation responses emitted to the most liked peer.

In a study conducted by Kendall et al. (1976), the Nowicki-Strickland locus of control scale was administered to institutionalized emotionally disturbed boys and noninstitutionalized normal boys. Locus of control and separate factor scores were calculated. Helplessness factor scores differentiated the two groups.

Baken (1978) did not find significant differences in the locus of control as measured on the children's Internal/External Control Scale of Reinforcement between three groups of 81 homebound children (emotionally disturbed/socially maladjusted, physically handicapped, and health impaired).

In another study by Finch et al. (1975), the generality of research on the relationship between locus of control in children and achievement was extended to a group of emotionally disturbed children. Results indicated that the emotionally disturbed children who perceived a relationship between their behavior and its consequences obtained higher achievement scores.

In a study conducted by Perna et al. (1983), which investigated the relationship of internal locus of control, academic achievement, and IQ in emotionally disturbed boys, the researchers studied 63 emotionally disturbed boys (10-15 years old). The results revealed that subjects with a higher degree of internal locus of control (LOC) made greater gains in academic achievement. The subjects' chronological age and IQ scores did not affect their degree of internal locus of control.

Section Three: Locus of Control and Learned Helplessness

The relationship between locus of control and learned helplessness has been investigated by some

researchers. Tollefson (1982) reformulated a theory of learned helplessness suggesting that helplessness may be the outcome of learning disabled students' belief in personal or universal helplessness. Motivational, cognitive, and emotional deficits may result. Research on locus of control and persistence, as well as the contrast between mastery (achievement) oriented and learned helplessness behavior indicates that successful, achievement-oriented students take personal responsibility for success rather than ascribing it to external forces. They can account for failure while still maintaining high expectations. Parents can help their learning disabled children decrease their helpless behavior by following a three step program: helping to set realistic achievement goals, helping to develop a plan to achieve the goals, and teaching the child to accept personal responsibility for success or failure by attributing the outcome to effort.

In a paper titled "Verbal Self-Instruction for the Mentally Retarded: The Missing Link," Walters et al. (1983) examined the research on locus of control, learned helplessness, and attribution theory, and discussed the implications of the mentally retarded child's attitude toward his failures and successes. Studies were cited linking internal locus of control with achievement, suggesting that more attention be paid

to promoting students' internal orientations. Learned helplessness research was reviewed in terms of its effect on learning and the ability to cope with failure. Attribution theory research revealed that causal attributions are learned, and students can be taught to make attributions that will help rather than hinder their academic progress. Specific interventions may be more effective when matched accordingly with the child's specific attributions. Verbal monitoring was advocated as one way to help children who seem unmotivated, appear to have given up, and/or have learned helplessness.

Friedlander (1984) proposed that helplessness results from a perception of uncontrollability. With children, uncontrollability is often synonymous with failure. A review of selected studies from the developmental literature concerning uncontrollability, failure, and causal attribution, indicates that cognitive development factors tend to render the child relatively resistant to the development of helplessness.

Section Four: Intervention Techniques

This section deals with different types of intervention and ways of promoting internality and the awareness of the individual's personality changes.

Dean (1984) focused on the black youth with an external locus of control proposing action counseling as

a technique. She suggested that of because these youth's perceptions of having little control over their environment and of lacking the competence to gain control it was necessary for counselors, especially non-blacks, to develop techniques and strategies that would assist black youths in developing greater self-esteem. The approach was a seven-step process that highlighted achievement of short term goals and active behavioral change. She recommended that counseling techniques take into consideration the black experience and build positive self-identification and racial pride, with career counseling including an exposure to and awareness of a variety of occupational options and achievements of blacks in those occupations. These techniques would help the black youths' transition from an external to an internal locus of control.

Cellini and Kantorowski (1984) administered Rotter's Internal-External locus of control scale and the career decision scale to 113 male and 177 female undergraduates. Their intent was to study the relationship between locus of control and career decidedness. The researchers suggested that the student's locus of control be determined in career counseling so that counseling intervention could be designed accordingly.

Walden and Ramey (1983) compared a group of academically high-risk children who had participated in

an efficacy-oriented intervention program to a group of high-risk non-intervention children and a low-risk comparison group. The high-risk intervention and low-risk children had stronger beliefs in personal control over academic success. These beliefs were good predictors of achievement.

Katkovsky et al. (1966) studied parent-child interactions in relation to the child's belief in internal control. The findings indicated that a combination of protection, nurturance, and loving from the mother and praise from the father will increase the child's belief in internal control. In contrast, parental dominance, rejection and criticism from the father have a negative impact on the child's belief in internal control.

Section Five: Use of the Intellectual Achievement Responsibility Scale

This section discusses different studies correlating the intellectual achievement responsibility scale to different personality traits. Comparing achievers with underachievers in respect to locus of control and self-concept, Kanoy et al. (1980) discovered that achievers had significantly higher self-concepts than underachievers in the intellectual and school status subscale. Achievers also had significantly higher internal locus of control scores than underachievers. No sex differences were revealed.

Stanwyck and Felker (1971) assessed 373 school children in grades three through six using 1) Piers-Harris Self-Concept Scale; 2) the Children's Manifest Anxiety Scale; and 3) the Intellectual Achievement Responsibility Scale. Their intent was to establish self-concept as the basis for acceptance of responsibility for intellectual achievement and anxiety over intellectual failure. The research design included age and gender variables. The results showed that, regardless of grade level, students with low self-concepts gradually assumed less responsibility for academic success. Students with high self-concept gradually increased their acceptance of responsibility for success from grades three to five and maintained a high measure of acceptance in grade six. The implications of this study support the need to enhance self-concept at the beginning of a child's school experience.

The relationship between a child's perception of the causes of academic success or failure and achievement behavior and reading ability were examined by Butkowsky (1980). He used Crandall's Intellectual Achievement Responsibility scale (IAR) and a measure of the motivation behind a student's performance of a single, specific task. The subjects were fifth grade boys of good, average, or poor reading ability. An assessment was made of the subject's initial expectation of success

and persistence in the face of difficulty. The IAR yielded scores representing total internal locus of control, internality of success, and internality of failure, as well as subscores reflecting causal attributions of ability or effort. The IAR indicated a more global perception of locus of control.

Reed (1970) administered Crandall's Intellectual Achievement Responsibility Scale and a children's achievement motivation scale to a group of elementary school children. She discovered that both achievement motivation and belief in self-responsibility for success were found to predict school performance.

The effect of gender in predicting academic achievement from internal/external controls was studied by Hollis and Woods (1975). The study was designed to investigate the relationship between internal-external locus of control and academic achievement for boys and girls over a nine-month period. A total of 279 third-grade children were tested on I-E control and academic achievement in September and again in May. Achievement measure was demonstrated by the reading and arithmetic batteries of the California Tests of Basic Skills. The comparison revealed that improvements in measures of the I-E trait could result in an important predictor of academic performance for boys.

Slade, Steward, Morrison and Abramowitz (1984) assessed helplessness in relation to persistence. They compared 16 students with 16 abused, 8-12 year olds, homebound, age and sex-matched. The latter group showed no less persistence in working for rewards, made equivalent use of contingency information to maintain persistence, and assumed equivalent responsibility for success. However, they took less responsibility for failure. Family environment may cause abused children to feel helpless avoiding aversive outcomes.

Studies were done in the Arab countries using different scales. Tillman and Lord (1975) administered a modified version of Locus of Control to Egyptian and Tunisian samples in which they compared locus of control scores along with demographic variables. Barhoum (1979) also administered a standardized Rotter I-E Scale to a Jordanian sample.

Summary

This chapter was divided into five sections. The first section focused on the social learning theory as the theoretical framework for this study.

The second section summarized various studies relating locus of control to emotional disturbance. The results stressed the importance of the relation between internality trait and factors such as academic achievement. Others indicate that there are no significant

differences between EI children and REG children employing impulsive and reflective styles. Perhaps the most astonishing result in the section indicated that "emotionally disturbed" children who perceived a relationship between their behavior and its consequences obtained higher achievement scores.

Section three reviewed studies that compared the relationship between locus of control and learned helplessness. Results, in general, showed that disabled children can be helped to decrease their helpless behavior by setting realistic achievement goals, developing a plan to achieve the goals, and teaching the child to accept responsibility for success or failure by ascribing the outcome to effort. The findings of another study revealed that those students who perceive themselves as having little or no control as a group, spent less time studying, attended fewer classes, and felt it was not important to do well academically. It was also revealed that learning-disabled children are more likely than normal achievers to ascribe success, but not failure, to external forces.

Section four included studies that dealt with different methods of intervention. One result indicated significant correlations between events that were perceived as being undesirable, but under personal control, and psychological symptoms.

The fifth section summarized studies utilizing the Intellectual Achievement Responsibility Scale for different purposes. In one study, the scale failed to show a greater predictive validity relating reading test performance to general reading ability. Another study revealed that self-responsibility for success predicted school performance.

In general, the chapter summarized many studies revolving around the locus of responsibility trait. It began with Rotter's theory, which promotes the internal-ity idea, and ended with researchers who used his theory as a basis for their researches. Most of the results confirmed the importance of internal responsibility and focused on the promotion of this trait. As noticed from the previous mentioned studies, the EI children were involved in many of them, but few studies compared the EI with the REG children, if the results of the previous studies hold some truth. It is justifiable then to compare the two groups in terms of their internal locus of responsibility, considered by many researchers as crucial in the learning process. It would be nice to know what each group thinks about this ascription trait.

CHAPTER III

RESEARCH DESIGN AND METHODOLOGY

General Design of the Study

The data for this study consist of the responses of forty-eight middle school students from the midwest, to thirty-four items from the Intellectual Achievement Responsibility Scale (see Appendix A).

In this study, the research design included ascriptions of locus of responsibility as the dependent variables, and sex of the respondents and their identification as EI or REG as the independent variables. These variables formed the major hypotheses of this study.

Subjects

The subjects of this study consisted of a sample of forty-eight middle school students--twenty-one EI and twenty-seven REG.

The Instrument

The IAR scale was developed by Crandall, Katkovsky, and Preston (1962) to measure children's beliefs

concerning their ascriptions of Intellectual Achievement Responsibility. The thirty-four items measure reinforcements in a number of motivational and behavioral areas such as affiliation, dominance, achievement, and dependency. Each item on the scale describes either a positive or negative achievement experience that occurs frequently in the daily lives of the children. This is followed by two alternatives, one ascribing the cause of the event to someone or to some external condition in the child's environment (external responsibility) and the other to some aspect of his/her own behavior, motivation, or attitude (internal responsibility).

The scale was constructed to sample an equal number of positive and negative events. The authors claim that the dynamics used in assuming credit for causing good things to happen might be very different from those used in accepting blame for unpleasant consequences.

There are two subscale scores and a total score. The I+ subscale measures the child's tendency to see himself as responsible for the reinforcements he receives in positive intellectual achievement situations. The I- subscale measures his tendency to see himself as responsible for his reinforcements in negative situations. The total I score--the sum of the subscores--measures the child's general acceptance of responsibility for the outcome of his achievement

efforts. A high score on each of these scales represents internal responsibility; a low score represents external responsibility. The scale is limited to intellectual academic situations and focuses on significant persons in the environment as reinforcing agents. It limits the source of external control to those persons who most often come in face-to-face contact with a child.

It was developed within the context of a larger research program dealing with children's achievement development and aims at assessing children's beliefs in reinforcement responsibility exclusively in intellectual-academic achievement situations.

Reliability of the Scale

The consistency (test-retest reliability) of the children's IAR responses over time is moderately high. The correlations were .69 for total I, .66 for I+, and .74 for I-. These correlations were all significant at the level of .001.

Procedure

An application to administer the study on an individual basis was turned down by a review committee of the participating school district. They believed that scheduling each student individually would put an undue burden on an already busy staff. Moreover, they

judged that the students' absence from instruction could not be justified.

A second application to administer the scale on a group basis was later approved. The school's coordinator and this writer met with the teachers of the EI students to explain the purpose of the study, describe the test, and answer their inquiries. The coordinator asked the teachers of REG students who were willing to volunteer to administer the scale. It is noteworthy that the participating REG classrooms did not contain any mainstreamed EI students.

The process by which EI students were identified required testing by a school psychologist and observation and an interview by a school social worker. If they both deemed the student eligible, the case was referred to a multidisciplinary evaluation team. The team included the teacher, the parent, and either the psychologist or social worker. The team consequently decides if the child is eligible.

Signed consent forms were acquired from the parents or guardians of each student participating in the study.

Data Collection and Scale Administration

The data for this study consist of the responses of forty-eight middle school students. They were given the Intellectual Achievement Responsibility Scale (IAR) by

their teachers. The students having difficulty reading and/or comprehending the written material were assisted by the teachers. Students were instructed to select answer "a" or "b", choosing the one which best described his/her feelings or experiences. They were told that there was no right or wrong answer. Example: When you read a story and remember most of it, is it usually:

- a) because you were interested in the story, or
- b) because the story was well written?

Forty-eight questionnaires were returned for analyses. Age, educational levels, and sex distributions are presented in Tables, 1, 2, and 3. Eighteen of the REG and one of the EI students did not complete all of the demographic items requested.

The scores were calculated as follows: the internal alternatives were designated by an I. Positive-event items were indicated by a plus sign. The student's I+ score was obtained by summing all positive events for which he/she assumed credit. Negative events were indicated by a minus sign following the I, and the I- score was the total of all negative events for which he/she assumed blame. The total I score was the sum of the I+ and the I- subscores.

The students' patterns of responses are summarized in Table 4. Unfortunately, very few of the students responded wholly as intended by the scale designers. On

Table 1. Distribution of Respondents
According to Age.

Age	Regular	Emotionally Impaired
15	4	2
14	7	5
13	12	8
12	--	6
Blank	4	-

Table 2. Distribution of Respondents
According to Grade

Grade	Regular	Emotionally Impaired
9th	--	2
8th	23	8
7th	--	4
6th	--	6
Blank	4	1

Table 3. Distribution of Respondents
According to Gender

Gender	Regular	Emotionally Impaired
Male	9	17
Female	8	4
Blank	10	--

Table 4. Patterns of Students' Responses to the IAR Scale Items

Item No.	REG (N=27)					EI (N=21)				
	a	b	a/b	c	-	a	b	a/b	c	-
1	0	27				2	18			1
2	25	2				15	5			1
3	10	15	1		1	5	14	1		1
4	0	25			2	3	16	1		1
5	24	3				19	2			
6	25	1	1			16	4		1	
7	17	7	2		1	17	3	1		
8	9	15		1	2	8	12		1	
9	12	14	1			3	17	1		
10	18	3	3	3		10	10		1	
11	15	9	3			14	6	1		
12	14	9	4			12	7	2		
13	3	24				3	17	1		
14	17	8	1		1	10	11			
15	9	16	1		1	6	11	1		3
16	1	23		1	2	4	17			
17	21	4	1		1	14	7			
18	18	7	1		1	12	8	1		
19	6	17	2	2		4	16	1		
20	19	6	1		1	13	6	1		1
21	9	15	1	1	1	11	8	2		
22	7	18			2	4	16			1
23	12	12	2		1	5	13			3
24	13	12			2	6	13	1		1
25	7	15	4	1		3	16	1		1
26	18	7			2	17	3			1
27	14	10	2		1	11	7	2		1
28	5	20	1		1	8	11		1	1
29	12	11	2	1	1	10	9	1		1
30	14	8			5	11	9			1
31	2	23	1		1	6	14			1
32	9	13	4		1	8	11	1		1
33	9	15	1		2	6	14			1
34	3	16	5		3	7	12	1	1	

10 = no gender

1 = no gender

only four items (1,2,5,13) did the students restrain themselves to answering either "a" or "b". Similarly, on only four items (5,14,16, and 17) did the EI students restrain themselves to "a" or "b" answers. Variations included (i) marking both "a" and "b", (ii) writing in an alternative answer of their own - a "c" response, or (iii) leaving the item blank. Nevertheless, most students answered most items as intended.

The Statistical Treatment

The scores of each student were computed including means and standard deviations. A "t" test was used as the main statistical tool to examine any significant differences between each pair of means. Two-tailed t tests determined whether significant differences existed between means at .05 level of significance. The z-test of proportion was also employed to ascertain significant differences between ascriptions of locus of responsibility and the independent variables on each item between the two major groups.

Summary

The chapter discussed the design of the study, the subjects, the scale, scale administration and data collection, and statistical treatment.

The study was not as successful as had been hoped in gathering the data as it was planned. Many limitations intruded. Nevertheless enough data were collected to warrant analyses as intended.

CHAPTER IV

RESULTS OF THE ANALYSES

This chapter presents the results of the statistical analyses of the responses to the Intellectual Achievement Responsibility Scale.

Table 5. Total Score of I: A Computational Illustration of the t Test Results for the Total Scores of a Group of "EI" and a Group of "REG" Students.

Group	n	mean	sd
EI	21	20.8	3.568
REG	27	20.1	5.17
$t = .09$			

As shown, the means and standard deviations of the two groups are very close and the value of the observed t (.09) is less than the critical value of 2.96, when $\alpha = .05$. No statistically significant differences were discovered between the means of the two groups regarding their ascription of responsibility for intellectual achievement. There were similar failures in finding significant

differences between comparisons of male and female students. In summary, none of the comparisons made revealed significant differences, including comparisons of I+/I- subscore totals.

Nevertheless, in order to look still more closely at the data, z-tests of proportion were made for each item on the IAR scale. Two items showed highly significant differences (less than .01) and three more were significant (less than .05). An additional six items, though failing to show differences at .05 levels, nevertheless came close (less than .07), and they were considered worth examining to see if they contained any suggestive patterns of response.

Hence, the results of the z-test of proportions showed statistically significant and close to statistically significant differences for eleven of the thirty-four items. Table 6 illustrates the proportions and z-values for each item, and the results on each of the eleven items are described in more detail below.

Item No. 9.

If you solve a puzzle quickly, is it:

- a) because it wasn't a very hard puzzle, or
- I+ b) because you worked on it carefully?

Table 6. A Computational Illustration
of z-values for the IAR Scale's
Thirty-Four Items

Item	EI %	REG %	z-value	Significance Level
<u>I+ Scores</u>				
1	90	100	-1.4907	.14
2	75	93	-1.8590	.06*
5	90	89	.1528	.88
6	80	96	-.7889	.07
9	85	54	3.8826	.00***
12	57	61	-.3703	.71
13	85	85	0	1.00
16	81	96	-1.7522	.08
17	67	84	-1.6568	.10
20	68	76	-.7475	.45
21	42	63	-1.8546	.06*
24	32	52	-1.8689	.06*
25	84	67	2.0213	.04**
28	58	80	-1.9429	.05*
29	53	52	.0873	.94
31	70	92	-2.1470	.03**
32	42	41	.0883	.94
<u>I- Scores</u>				
3	74	60	1.3912	.16
4	84	100	-1.9024	.06*
7	15	32	-2.1292	.03**
8	40	38	.1826	.86
10	50	14	3.2199	.00***
11	70	63	.6831	.50
14	48	68	-1.8345	.07
15	65	64	.0864	.93
18	60	72	-1.0954	.27
19	80	74	.6708	.50
22	80	70	1.1180	.27
23	28	50	-2.0788	.27
26	85	72	1.6282	.10
27	39	43	-.3479	.73
30	55	64	-.8090	.42
33	70	63	.6831	.50
34	63	84	-1.8959	.06*

* = <.07, ** = <.05, *** = <.01

The z-value for this item (3.8826) is higher than the (1.96) critical value. Eighty-five percent of the EI who answered this item chose alternative "b", and fifty-four percent of the REG chose the same alternative.

Item No. 10.

If a boy or girl tells you that you are dumb, is it more likely that they say that:

- a) because they are mad at you, or
- I- b) because what you did really wasn't very bright?

The z-value for Item 10 (3.2199) is higher than the critical value (1.96). Fifty percent of the EI students who answered this item chose alternative "b", and fourteen percent of the REG chose the same alternative.

According to Table 6, three of the items--7, 25, and 31--show statistically significant differences between the two groups at (.05) level of significance. These items read as follows:

Item No. 7.

When you lose at a game of cards or checkers, does it usually happen:

- a) because the other player is good at the game, or
- I- b) because you didn't play well?

The z-value for this item (-2.1292) is less than the critical, value (-1.96). Fifteen percent of the EI who answered the item chose alternative "b", and thirty- two percent of the REG chose the same alternative.

Item No. 25.

Suppose you become a famous teacher, scientist, or doctor. Do you think this would happen:

- a) because other people helped you when you needed it, or

I+ b) because you worked hard?

The z-value for this item (2.0213) is greater than the critical value (1.96). Eighty-four percent of the EI who answered this item chose alternative "b", and sixty-seven percent of the REG chose the same alternative.

Item No. 31.

If your parents tell you that you are bright or clever, is it more likely:

- a) because they are feeling good, or

I+ b) because of something you did?

The value of z (-2.1470) is less than the critical value (-1.96). Seventy percent of the EI who answered this item chose alternative "b", and ninety-two percent of the REG chose the same alternative.

Items 2, 4, 21, 24, 28, and 34 show differences in proportions at the (.07) level of significance, which is very close to (.05). Those items are:

Item No. 2.

When you do well on a test at school, is it more likely to be:

- I+ a) because you studied for it, or
- b) because the test was especially easy?

Seventy-five percent of the EI who answered this item chose alternative "a", and ninety-three percent of the REG chose the same alternative. The value of z (-1.859) is greater than (-1.96) but it is significant only at the (.07) level.

Item No. 4.

When you read a story and can't remember much of it, is it usually:

- a) because the story wasn't well written, or
- I- b) because you weren't interested in the story?

Eighty-four percent of the EI who answered this item chose alternative "b" while one hundred percent of the REG chose the same alternative. The value of the z -score (-1.9024) is greater than (-1.96) but significant only at the (.07) level.

Item No. 21.

If people think you're bright or clever, is it:

- a) because they happen to like you, or
- I+ b) because you usually act that way?

Forty-two percent of the EI who answered this item chose alternative "b", while sixty-three percent of the REG chose the same alternative. The observed z-value (-1.8546) is greater than (-1.96) but it is significant only at the (.07) level.

Item No. 24.

If a boy or girl tells you that you are bright, is it usually:

- I+ a) because you thought up a good idea, or
- b) because they like you?

Thirty-two percent of the EI who answered this item chose alternative "a", while fifty-two percent of the REG chose alternative "a". The observed value of z (-1.8689) is greater than (-1.96) but it is significant only at the (.07) level.

Item No. 28.

When you find it easy to work arithmetic or math problems at school, is it usually:

- a) because the teacher gave you especially easy problems, or

I+ b) because you studied your book well before you tried them?

The z-value (-1.9429) is greater than (-1.96) critical value but it is significant only at the (.07) level. Fifty-eight percent of the EI who answered the item chose "b", and eighty percent of the REG chose the same alternative.

Item No. 34.

If a teacher says to you, "Try to do better," would it be:

a) because this is something she might say to get pupils to try harder, or

I- b) because your work wasn't as good as usual?

On this item, sixty-three percent of the EI who answered it chose alternative "b", and eighty-four percent of the REG chose the same alternative. The value of the observed z (-1.8959) is greater than the critical value (-1.96), but it is significant only at the (.07) level.

Table 7 summarizes the above pattern of responses on IAR items where the differences were significant or close to significant.

In Table 7, the first seven of the items ask for responses which include an I+ choice. The right-hand column shows whether the EI group or the REG group had

the greater proportion making the I+ choice. The remaining four items ask for responses which include an I- choice.

Notice in the right-hand column in Table 7 that in each case either REG or EI has been underlined. Notice also that in every case REG is underlined and in no case is EI underlined.

These underlinings are based on the researcher's perceptions of how respondents who, in fact, do possess a sense of internal responsibility should have answered the item in question. These perceptions differ from the IAR scoring key in three of the significant cases--on Items 9 and 25 among the I+ items and on Item 10 among the I- items.

Rationales for these interpretations might go as follows:

Item 9 asks if you solve a puzzle quickly (perceived to be a key word), whether you solved it because it wasn't hard or because you worked carefully. The I+ choice in the key is for choosing carefulness. However, an equal, indeed possibly stronger, argument for internality could be based on the notion that easy puzzles can readily be solved "quickly" by nearly anyone, but care is to be reserved for harder puzzles that cannot be solved "quickly." In short, quickly-solved puzzles are no test of internality, and one possessing internality would dismiss them as "too easy."

Table 7. EI and REG Responses to IAR Items
Selected Because of Proportional
Differences in Response.

Item No.	Item Content	I+/I-	Level of Significance	Proportions of Response
9	Quick puzzle solution	I+	.01	EI > <u>REG</u>
25	Become famous	I+	.05	EI > <u>REG</u>
31	Parents say you are bright	I+	.05	<u>REG</u> > EI
2	Do well on a test	I+	.07	<u>REG</u> > EI
21	People think you are bright	I+	.07	<u>REG</u> > EI
24	Child says you are bright	I+	.07	<u>REG</u> > EI
28	Find math easy at school	I+	.07	<u>REG</u> > EI
10	Told you are dumb	I-	.01	EI > <u>REG</u>
7	You lose at card game	I-	.05	<u>REG</u> > EI
4	Can't remember story	I-	.07	<u>REG</u> > EI
34	Teacher says, "Do better"	I-	.07	<u>REG</u> > EI

Item 25 asks if in becoming famous you did so because other people helped you or because you worked hard. Hard work is keyed as the I+ choice. Yet again, an argument could be mounted that a person possessing internality could readily perceive that persons who have in fact achieved fame have characteristically done so with the help of others, while at the same time many persons who have in fact worked hard have not achieved fame. In short, this item may be no test of one's sense of internality, and those who tend to choose hard work as the source of fame may be deluding themselves.

Item 10 asks the respondent, when accused of being dumb by a peer, whether it is "more likely" (key words) that the peer is mad or that the respondent is really not bright. The not bright choice is keyed as I-. But this situation again can be argued to be no test of internality, since it is surely the experience of most children that they most often are called "dumb" by another child when that child is angry at them. Indeed, jealousy of one's brightness might often prompt the accusation of one's being "dumb." Hence the respondents who possess externality might well choose the I- alternative in this case, believing that external persons may possess the better judgment.

In any case, the underlinings in Table 7 are based on what the researcher considered to be the "most

logical" response for an "internal" respondent to make, even though in three cases his choice differs from Crandall et al. In the other eight cases in Table 7, the researcher's perceptions readily agree with the IAR answer key.

As a result, a consistent pattern clearly emerges: on every one of those eleven items of the IAR which significantly distinguished (or came close to doing so) between EI and REG responses, greater proportions of REG students chose "internal" responses. If one accepts the arguments on Items 9, 10, and 25 above, the pattern is unvarying.

The implications of the findings reported in this Chapter will be discussed in Chapter V.

Summary

The chapter summarized the results of the analyses with the emphasis on the z-test results. Eleven items show statistically significant differences or differences close to being significant between the two groups.

CHAPTER V

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

Summary of Objectives and Methods

The main objective of this study was to explore differences in the students' ascriptions of their locus of responsibility for intellectual successes and failures in an attempt to answer the following question:

Are there significant differences in the ascriptions between two groups of REG and EI students, ages 12 to 15, attending a middle school in the midwest? Their ascriptions were sampled by using the IAR Scale.

The major null hypothesis was:

H0: There are no significant differences (at .05 level of significance) between two groups of EI and REG students concerning their ascriptions of locus of responsibility.

Subordinate hypotheses were also presented to examine the differences among the groups and subgroups with respect to sex, with respect to I+/I- subtest scores, and with respect to individual item differences.

Rotter's social learning theory constituted the theoretical background and a literature review was presented.

A detailed description of the scale (IAR) used in the study was presented, along with the general design of the study, data collection methods, and the statistical treatments used.

Summary of Findings

The results of the t test comparisons revealed no statistically significant differences between the EI group and REG group in their ascriptions of locus of responsibility. This also applies to the comparisons of the means for subordinate hypotheses concerning gender and I+/I- scores.

The results of the z-test of proportions indicate that five of thirty-four items show statistically significant differences between the two groups at (.05) level of significance, and six more show differences which are close to being significant, below the (.07) level of significance.

Discussion

The major null hypothesis of this study cannot be rejected. This is supported, not only by the findings, but also by several limitations including: group administration versus individual administration, the

relatively small number and unequal distribution of subjects sampled, and the failure of the respondents to specify all their demographic data and to answer all items as requested.

Not only were there no significant statistical differences noted between EI and REG students, there were none found between the responses of males and females. This latter discovery coincides with findings of Kanoy et al. (1980) and Finch et al. (1975).

The z-test analyses of response proportions to individual items provide the only meaningful, yet minor, findings of this study. According to Table 7, a consistent pattern emerges as EI students ascribe cause of events to others and REG students ascribe cause of events to themselves, on eight of the selected eleven items. This pattern may suggest that (a) valid differences in ascribing responsibility between EI and REG students might exist, the specifics of which could be gleaned from further research, and (b) development of new or improvement on current testing methods might provide clearer and stronger arguments in support of, or against similar hypotheses.

While valid generalizations cannot be drawn from this study, it has raised questions and challenged our desire to engage in further research.

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Recommendations and Suggestions for Future Research

If further studies are to be attempted, recommendations for future research based on this study and existing literature are:

1. A larger number of respondents and broader base of distribution.
2. Focus future research on other countries. In the Arab countries, what is applicable to the American culture is not always applicable to the Arab culture. The external ascription trait appears to be more prevalent in the Arab culture, as described by Al-Azem in Chapters I and II. Accordingly, further investigations are recommended in the Arab countries.
3. Confirm or refute the findings of this study, taking into consideration the scale's limitations. The thirty-four items with two alternative answers are long, tedious, and time consuming. Eliminating "either or" alternatives might be considered. Some of the students' indicated the potential for this by adding a third written choice. Many added the word "both" as a third alternative, some regarded certain items as open-ended and completed the alternative with their own words and others left items unanswered.

4. Finally, the above study was carried out to see if certain expectations might be confirmed - but they were not confirmed.

- a. One cannot assert on the basis of this study that curricular interventions aimed at increasing EI students' "internality" will make any beneficial difference in their capacities to cope with experience.
- b. One cannot say that the IAR (especially if administered in the above fashion) effectively differentiated between EI and REG students. It may even be that whatever "EI" validly means is unrelated to whatever "internality" validly means. In any case, on the basis of this study alone, one cannot say.
- c. Hence the hunches noted at the outset on page 3 above are not borne out; one cannot say whether sex makes a difference in ascriptions of intellectual responsibility; and there are no bases in this study for either supporting or refuting claims which are made in the literature as reported in Chapter II above.

A P P E N D I C E S

APPENDIX A

THE IAR SCALE

This is not a test. I am trying to find out how persons your age think about certain things. I am making a study for a doctor's degree at Michigan State University. I am going to ask you some questions to see how you feel about certain things. There are no right or wrong answers to these questions. Each question has two answers and you are to choose one of those two. Remember, different persons give different answers. I want to be sure you know that you do not have to answer these questions and you may stop at any time. If you answer these questions as I read them to you, and then give me your paper when you are finished, I will understand that you are willing to help me and to let me use your answers for my study. Your name will be kept secret and no one besides you will know what answers you make.

Thank you for your help.

1. If a teacher passes you to the next grade, would it probably be:
 - a) because she like you, or

- b) because of the work you did?
2. When you do well on a test at school, is it more likely to be:
- a) because you studied for it, or
 - b) because the test was especially easy?
3. When you have trouble understanding something in school, is it usually:
- a) because the teacher didn't explain it clearly,
or
 - b) because you didn't listen carefully?
4. When you read a story and can't remember much of it, is it usually:
- a) because the story wasn't well written, or
 - b) because you weren't interested in the story?
5. Suppose your parents say you are doing well in school, is it likely to happen:
- a) because your school work is good, or
 - b) because they are in a good mood?
6. Suppose you did better than usual in a subject at school, would it probably happen:
- a) because you tried harder, or
 - b) because someone helped you?
7. When you lose at a game of cards or checkers, does it usually happen:
- a) because the other player is good at the game,
or

- b) because you don't play well?
8. Suppose a person doesn't think you are very bright or clever:
- a) can you make him change his mind if you try to, or
 - b) are there some people who will think you're not very bright no matter what you do?
9. If you solve a puzzle quickly, is it:
- a) because it wasn't a very hard puzzle, or
 - b) because you worked on it carefully?
10. If a boy or girl tells you that you are dumb, is it more likely that they say that:
- a) because they are mad at you, or
 - b) because what you did wasn't really bright?
11. Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen:
- a) because you didn't work hard enough, or
 - b) because you needed some help and other people didn't give it to you?
12. When you learn something quickly in school, is it usually:
- a) because you paid close attention, or
 - b) because the teacher explained it clearly?
13. If a teacher says to you, "Your work is fine," is it:

- a) something teachers usually say to encourage pupils, or
 - b) because you did a good job?
14. When you find it hard to work arithmetic or math problems at school, is it:
- a) because you didn't study well enough before you tried them, or
 - b) because the teacher gave problems that were too hard?
15. When you forget something you heard in the class, is it:
- a) because the teacher didn't explain it very well, or
 - b) because you didn't try very hard to remember?
16. Suppose you weren't sure about the answer to a question your teacher asked you, but your answer turned out to be right. It is likely to happen:
- a) because she wasn't as particular as usual, or
 - b) because you gave the best answer you could think of?
17. When you read a story and remember most of it, is it usually:
- a) because you were interested in the story, or
 - b) because the story was well written:
18. If your parents tell you you're acting silly and not thinking clearly, is it more likely to be:

- a) because of something you did, or
 - b) because they happen to be feeling cranky?
19. When you don't do well on a test at school, is it:
- a) because the test was especially hard, or
 - b) because you didn't study for it?
20. When you win at a game of cards or checkers, does it happen:
- a) because you play real well, or
 - b) because the other person doesn't play well?
21. If people think you are bright or clever, is it:
- a) because they happen to like you, or
 - b) because you usually act that way?
22. If a teacher didn't pass you to the next grade, would it probably be:
- a) because she "had it in for you," or
 - b) because your school work wasn't good enough?
23. Suppose you don't do as well as usual in a subject at school. Would this probably happen:
- a) because you weren't as careful as usual, or
 - b) because somebody bothered you and kept you from working?
24. If a boy or girl tells you that you are bright, is it usually:
- a) because you thought up a good idea, or
 - b) because they like you?

25. Suppose you become a famous teacher, scientist or doctor. Do you think this would happen:
- a) because other people helped you when you needed it, or
 - b) because you worked hard?
26. Suppose your parents say you aren't doing well in your school work. Is this likely to happen more:
- a) because your work isn't very good, or
 - b) because they are feeling cranky?
27. Suppose you are showing a friend how to play a game and he/she has trouble with it. Would that happen:
- a) because he/she wasn't able to understand how to play, or
 - b) because you couldn't explain it well?
28. When you find it easy to work arithmetic or math problems at school, is it usually:
- a) because the teacher gave you especially easy problems, or
 - b) because you studied your book well before you tried them?
29. When you remember something you heard in class, is it usually:
- a) because you tried hard to remember, or
 - b) because the teacher explained it well?
30. If you can't work a puzzle, is it more likely to happen:

- a) because you are not especially good at working puzzles, or
 - b) because the instructions weren't written clearly enough?
31. If your parents tell you that you are bright or clever, is it:
- a) because they are feeling good, or
 - b) because of something you did?
32. Suppose you are explaining how to play a game to a friend and he/she learns quickly. Would that happen more often:
- a) because you explained it well, or
 - b) because he/she was able to understand it?
33. Suppose you're not sure about the answer to a question your teacher asks you and the answer you give turns out to be wrong. Is it likely to happen:
- a) because he/she was more particular than usual, or
 - b) because you answered too quickly?
34. If a teacher says to you, "Try to do better," would it be:
- a) because this is something he/she might say to get pupils to try harder, or
 - b) because your work wasn't as good as usual?

age _____

gender _____

grade _____

APPENDIX B

CONSENT FORM

I, _____, hereby give my permission - do not give my permission for my child, _____, to participate in the dissertation research project which will be done by Ph.D. candidate Musa Barhoum as a complementary part for his Ph.D. degree.

The purpose of the research is to determine students' perspective of their own responsibility for classroom achievement.

I understand that my child will be asked, in a group setting, 34 questions. None of the questions are of a personal nature. For example: question number 15:

When you forget something you hear in class, is it

a) because the teacher didn't explain it very well,
or

b) because you didn't try very hard to remember?

My child will be asked to choose the answer which fits his/her own perception.

This procedure will necessitate my child to be part of a group of students with the researcher outside the classroom for approximately 35 minutes.

I understand that the procedure will be explained to my child and that my child understands it, and there will be no inherent risks involved.

I understand that my child will be asked verbally to participate. I understand that my child can freely consent to participate, and he/she is free to discontinue the procedure at any time without recrimination. There is no penalty for not participating.

I understand that all results will be treated with strict confidence and my child will remain anonymous. My child's name will not be used because the answers will be treated as pooled answers not as individual data.

The aim of the research is the comparison of two groups of students and not individuals.

Results may be made available to the child upon request, within the above restrictions.

Parent's signature/date

APPENDIX C

THE INSTRUCTIONS

(To be read aloud with the participants when the test is administered)

This is not a test. I am just trying to find out how persons your age think about certain things. The reason that I am doing this is for a doctor's degree at Michigan State University. I am going to ask you some questions to see how you feel about certain things. There are no right or wrong answers to these questions. Each question has two answers and you are to choose one of these two. Remember, different persons give different answers. These questions will take about 35 minutes to answer. I want to be sure you know that you do not have to answer these questions and you may stop at any time.

If you answer these questions as I read them to you, and then give me your paper when you are finished, I will understand that you are willing to help me and to let me use your answers for my study. Your name will be kept secret and no one besides you will know what answers you give.

Thank you for your help.

B I B L I O G R A P H Y

BIBLIOGRAPHY

- Al-Azem, S. J. (1969). Alnakd Althatee Ba'ed Al-Hazeemah (2nd ed.). Beirut: Dar Al-Talee'ah.
- Baken, J. W. (1978). Locus of control: Characteristics of a homebound population. Exceptional Children, 45(3), 208-210.
- Barhoum, M. I. (1979). Standardization of Rotter internal-external locus of control scale as applied to Jordanian population sample. Unpublished Master's thesis, University of Jordan, Amman.
- Butkowsky, I. S. (1980). General versus task-specific measures of children's causal attributions: Their relationship to achievement and reading ability. Alexandria, VA: (ERIC Document Reproduction Service No. ED 189128).
- Cellini, J. V., & Kantorowski, L. A. (1984). Locus of control and career decidedness. Some methodological notes. Psychological Reports, 55(2), 613-614.
- Crandall, V. C., Katkovsky, W. C., & Crandall, V. J. (1965). Children's beliefs in their own control of reinforcements in intellectual academic achievement situations. Child Development, 36, 91-109.
- Crandall, V. C., Katkovsky, W. C., & Preston, A. (1962). Motivational and ability determinants of young children's intellectual achievement behaviors. Child Development, 33, 643-660.
- Dean, S. A. (1984). External locus of control and career counseling for black youth. Journal of Non-White Concerns in Personnel and Guidance, 12(3), 110-116.

- Dweck, C. S., & Reppucci, N. D. (1975). The role of expectations and attributions in the alleviation of learned helplessness. Journal of Personality and Social Psychology, 31, 674-685.
- Finch, A. J., Jr., Kendall, P. C., Deardorff, P. A., Anderson, J., & Sitarz, A. M. (1975). Reflection-impulsivity, persistence behavior, and locus of control in emotionally disturbed children. Journal of Consulting and Clinical Psychology, 43(5), 748.
- Finch, A. J., Jr., Pezzuti, K. A., & Nelson III, W. M. (1975). Locus of control and academic achievement in emotionally disturbed children. Journal of Consulting and Clinical Psychology, 43(1), 103.
- Finch, A. J., Jr., Nelson, W. M., Montgomery, L. E., & A. B. Stein. (1975). Reflection-impulsivity and locus of control in emotionally disturbed children. Journal of Genetic Psychology, 125, 273-275.
- Finch, A. J., Jr., Deardorff, P. A., Anderson, J., & Sitare, A. M. (1975). Affective relationship, locus of control, and imitative behavior. Journal of Genetic Psychology, 127, 71-74.
- Friedlander, S. (1984-1985). Learned helplessness in children: Perception of control and causal attributions. Imagination, Cognition and Personality, 4(1), 99-116.
- Hollis, R. E., & Woods, E. M. (1975). Sex differences in predictability of academic achievement from internal-external control. Alexandria, VA: (ERIC Document Reproduction Service No. ED 139505).
- Kanoy, R. C., Johnson, B. W., & Kanoy, K. W. (1980). Locus of control and self-concept in achieving and under-achieving bright elementary students. Psychology in the Schools, 17, 395-399.
- Katkovsky, W., Cranda, V. C., & Good, S. (1966). Parental antecedents of children's beliefs in internal-external control of reinforcements in intellectual achievement situations. Alexandria, VA: (ERIC Document Reproduction Service No. ED 24447).

- Kendall, P. C., Finch, A. J., Jr., & Mahoney, J. (1976). Factor specific differences in locus of control for emotionally disturbed and normal children. Journal of Personality Assessment, 40(1), 42-45.
- Lawrence, E., & Winschel, J. (1975). Locus of control: Implications for special education. Exceptional Children, 41, 483.
- Perna, S. J., Jr., et al (1983). The relationship of internal locus of control, academic achievement, and IQ in emotionally disturbed boys. Behavioral Disorders, 9(1), 36-42.
- Phares, E. J. (1976). Locus of Control in Personality. Morristown, NJ: General Learning Press.
- Reed, L. (1970). Achievement motivation and self-attribution related to school achievement. Research projects in early childhood learning. Alexandria, VA: (ERIC Document Reproduction Service, No. ED 063040).
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, 809.
- Rotter, J. B., Chance, J. E., & Phares, E. J. (1972). Applications of a Social Learning Theory of Personality. New York: Holt, Rinehart, & Winston.
- Rotter, J. B., & Hochreich, D. J. (1975). Personality. Glenview, IL: Scott, Foresman and Company.
- Roueche, J. E., & Mink, O. G. (1982). Overcoming learned helplessness in community college students. Journal of Developmental & Remedial Education, 5(3), 2-5.
- Revised Special Education Rules. (1983). Definition of emotionally impaired. East Lansing, MI: State of Michigan.
- Slade, B. B., Steward, M., Morrison, T. L., & Abramowitz, S. I. (1984). Locus of control, persistence, and use of contingency information in physically abused children. Child Abuse and Neglect, 8(4), 447-452.

- Stanwyck, D. J., & Felker, D. W. (1971). Intellectual achievement responsibility and anxiety as functions of self-concept of third to sixth grade boys and girls. Alexandria, VA: (ERIC Document Reproduction Service No. ED 080903).
- Stipeck, D. J., & Hoffman, J. M. (1980). Children's achievement-related expectancies as a function of academic performance histories and sex. Journal of Educational Psychology, 172(6), 862.
- Tillman, W. S., & Lord, E. E. An examination of locus of control orientations in Egypt and Tunisia. Human Organization, 34(4), 408.
- Tollefson, N. (1982). Parental strategies for reducing learned helpless behavior among learning disabled students. Alexandria, VA: (ERIC Document Reproduction Service No. ED 226547).
- Walden, T. A., & Ramey, C. T. (1973). Locus of control and academic achievement: Results from a preschool intervention program. Journal of Educational Psychology, 75(3), 347-358.
- Walters, E., Walters, G., & Bonnington, S. (1983). Verbal self-instruction for the mentally retarded: The missing link. Alexandria, VA: (ERIC Document Reproduction Service No. ED 230016).

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