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Causal attributions and task persistence of learned-helpless and mastery-oriented sixth graders in math, physical education, and reading

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The University of North Carolina at Greensboro, 1994

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CAUSAL ATTRIBUTIONS AND TASK PERSISTENCE OF LEARNED-HELPLESS AND MASTERY-ORIENTED SIXTH GRADERS IN MATH, PHYSICAL EDUCATION, AND READING

by

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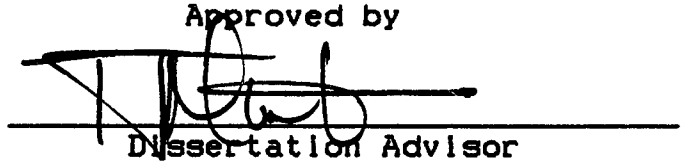

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The purpose of this investigation was to document the existence and study the globalness of the learned-helpless phenomenon among sixth graders. Students were identified as learned helpless or mastery oriented based on their scores on a modified form of the Intellectual Achievement Responsibility (IAR) Scale (Crandall, Katkovsky, & Crandall, 1965) and ratings from their math, physical education, and reading teachers. A total of 23 students were identified and included in the study from a populations of 197. This sample included 11 students classified as learned helpless (7 male and 4 female) and 12 students classified as mastery oriented (7 male and 5 female).

Chi-square analyses and resulting gamma coefficients revealed significant differences in the task persistence and causal attributions of these two groups. Specifically, learned-helpless students exhibited a lower percentage of on-task behaviors in each subject and when all subjects were considered together when compared to their mastery-oriented counterparts. The only signficant difference between these two groups with respect to task difficulty

appeared with the learned-helpless students in physical education. This difference was not in the direction anticipated, however. That is, learned-helpless students in physical education actually were on-task more with harder learning tasks. Mastery-oriented students actually persisted less with more difficult tasks. These differences were not statistically significant, but are practically interesting.

Significant attributional differences appeared between these two groups of students in math and when all subjects were considered together, particularly in failure situaltons. More specifically, learned-helpless students viewed failure as being out of their control approximately one-half of the time, Mastery-oriented students, in contrast, viewed their failure as being a result of insufficient effort approximately 75% of the time and, as a result, within their control.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

Dissertation Advisor

Committee Members

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CHAPTER I

LITERATURE REVIEW

INTRODUCTION

Let's face it - some students make teachers look good! These students seem to overcome all obstacles (e.g., personal inadequacies, poor teaching, overcrowded classrooms, out-of-date curricula) and succeed in spite of such limitations. Their inherent need to see a task through to its successful completion makes a teacher's day. Undoubtedly, this "stick-to-it-tive-ness" is a quality teachers would like to package and market. Certainly, news of the availability of such a product or program would spread exponentially!

Also present in classrooms, however, are those students for whom the desire for achievement seems to be absent. The really frustrating characteristic of these individuals is that they possess adequate ability. Their test scores are acceptable, subject-matter knowledge is present, and their prior academic preparation seems sufficient. Yet, in spite of this background, these students continue to perform poorly. They, almost without exception, join the ranks of the underachievers, problem-children and, perhaps ultimately, dropouts. They seem to shy away from

achievement situations and, in many cases, simply give up without trying. Teachers are concerned about this ever increasing proportion of students and about how these individuals can be reached.

Teachers can make use of existing research in order to develop strategies to deal with these students. In fact, much meaningful research has been generated in the last twenty-five years concerning this learning-styles paradox. Unfortunately, little of this research has reached the classroom teacher.

"Mastery Oriented" is the label used by researchers to identify this first group of students. Individuals with such an orientation are characterized by their consistent ability to master the vast majority of achievement situations in which they find themselves. In fact, this group of students may actually seek such situations as opportunities to repeatedly prove themselves (e.g., Fincham, Hokoda & Sanders, 1989; Licht & Dweck, 1984).

Students have also been labeled "Learned Helpless" by researchers in this field. These individuals tend to avoid achievement situations. The battle cry of learned-helpless children seems to be "I can't," usually uttered long before adequate energy has been devoted to dealing with the situation. Frequently, their method of dealing with achievement situations is to give up without trying. A lack of personal responsibility for success/failure situations is

the telling characteristic of learned-helpless individuals (e.g., Diener & Dweck, 1978; Fincham & Cain, 1986). The personal frustrations of facing these individuals in the classroom and the tremendous sense of accomplishment when these individuals are "reached" has created a desire to make such triumphs more frequent. It is hoped that this study will eventually assist classroom teachers in the early identification and alleviation of such maladaptive behaviors.

For this investigation, students thought to represent both achievement orientations will be observed in two classroom contexts - math and reading - and in the physical education environment to determine if fundamentally different behaviors are displayed. Learned-helpless and mastery-oriented students typically exhibit vastly different tendencies in two areas: their persistence with learning tasks and their reasons for success or failure outcomes (e.g., Craske, 1985; Dweck, 1975; Stipek & Kowalski, 1989). More specifically, learned-helpless students, when faced with difficulty, tend to give up. Frequently, they cite factors over which they have no control as their reason for failure. If they truly feel out of control in these situations and, logically, give up, their performance suffers. In contrast, mastery-oriented students tend to intensify effort in the face of difficulty. They persist in seeking solutions largely because they view their successes

and failures as being directly related to their own personal effort. As a result, success with learning tasks becomes routine.

By observing learned-helpless and mastery-oriented students in these three settings, the issue of the generalizability of these achievement orientations will also be addressed. Much research concerning these constructs has seemed to accept this characteristic as fact with little empirical evidence (e.g., Dweck & Goetz, 1978; Fincham, Hokoda, & Sanders, 1989; Reynolds & Miller, 1989). These studies will be discussed later. It is the contention of this author that the question of generalizability must be resolved before any strategies can be developed for the alleviation of a learned-helpless achievement orientation.

It is useful to review this body of research from its beginnings to the present in order to better appreciate the phenomenon's purported pervasive influence on classroom performance. This review starts with the initial identification of learned helplessness in animal research in the late 1960's which led to its application to human behavior. Soon after it was found to exist in humans in this strictly behavioristic sense, it was also applied to human achievement situations. It did not account for the complexity of the human situation, however, so the theory was reformulated to include an individual's causal attributions in his/her assessment of a particular

achievement situation. Causes of learned helplessness will be discussed, as will its manifestation in the classroom. Much attention will be devoted to the identification of the learned-helpless child. Finally, unresolved issues in this research will be expressed, leading to the specific purposes of this investigation.

The overall purpose of this investigation was to document the existence and study the globalness of the learned-helpless phenomenon among middle school students. Task persistence differences between groups, and the impact of task difficulty on persistence, was assessed. Attributional differences between learned-helpless and mastery-oriented students were also examined. Additionally, the manifestation of persistence and attributional differences between groups across three classroom contexts (math, physical education, and reading) was addressed.

HISTORICAL PERSPECTIVE

Learned Helplessness First Identified in Animals

Richter (1957) developed a model of hopelessness to explain the sudden-death phenomenon in animals (which he also linked to similar occurrences in humans). He found that rats drowned very quickly after being placed into swimming jars filled with water at certain temperatures. He then pretreated rats by placing them in jars and removing them within a short time. After repeating this procedure several times, rats so pretreated were found to dramatically increase their swimming times. Richter used the concept of hopelessness, or lack of control over a situation, to explain the rats' rapid demise when not pretreated. According to Richter, immersion and removal from the jars "taught" the rats that the situation was not hopeless and explained their improved survival rates.

The psychological phenomenon of learned-helplessness was first identified nearly 25 years ago by Maier, Overmier, and Seligman (Overmier & Seligman, 1967; Seligman & Maier, 1967). Working with mongrel dogs, these researchers administered a classical conditioning treatment of extinguished lights followed by shocks. Animals in the "escape" group could terminate the shocks by pressing a panel in the testing apparatus. Those in the "yoked" group

experienced inescapable shock, i.e., the shocks could not be influenced by any voluntary responses of the animal. Eventually dogs in both groups were placed in a shuttlebox, a two-sided chamber designed so that shock could be avoided by jumping from one side to the other. Yoked dogs made few attempts to escape the shocks with the onset of the conditioned stimulus. In fact, these animals would soon lie down and whine, passively accepting the shocks. This behavior was in stark contrast to that of animals in the escape group. After several shuttlebox trials, these animals avoided shock altogether by jumping to the other side upon the presentation of the conditioned stimulus. This learned survival behavior seems quite similar to that of the rats used in Richter's work

The debilitating effects of learned-helplessness were subsequently demonstrated in mice (Braud, Wepman & Russo, 1969), rats (Seligman & Beagley, 1975), and goldfish (Padilla, Padilla, Ketterer & Giacalone, 1970). In each of these studies, animals initially presented with inescapable shock were soon rendered incapable of escape or avoidance even when they were actually able to do so.

The learned-helpless model of behavior has, at its core, the distinction between controllable and uncontrollable reinforcement. Animals learn to be helpless in reinforcement situations due to the initial experience of no control. Thus, the term "learned helpless" and its

underlying theory refers "...to the learning or perception of independence between one's behavior and the presentation and/or withdrawal of aversive events" (Dweck, 1975, p. 674).

Learned-Helplessness Applied to Humans

Replication of Animal Experiments

The phenomenon of learned-helplessness was subsequently studied in humans. For example, Fosco & Geer (1971) and Thornton & Jacobs (1971), following animal-study formats, elicited performance deficits in human subjects using shocks, while Hiroto (1974) used aversive tones with similar results. In these instances, subjects were divided into two groups: (1) a control group that learned to avoid the shocks/tones by solving a certain number of problems within a specified time, and (2) an experimental group that had no control over the shocks/tones. In these studies, the experimental groups quickly ceased problem-solving attempts, even when avoidance was possible, during the latter stages of the study. This finding led Hiroto to suggest the expectancy of response-outcome independence as being the crucial element for the occurrence of learned-helplessness in the human situation. In other words, human subjects

became helpless as they learned that their responses had no effect on outcomes.

The phenomenon has also been posited to underlie human depression (e.g., Aydin & Aydin, 1992; Burns & Seligman, 1991; Nolen-Hoeksema, Girgus, & Seligman, 1992; Seligman, 1974, 1975; Seligman, Klein & Miller, 1976). In fact, Seligman (1975) "...suggests that reactive depression, as well as learned helplessness, has it roots in the belief that valued outcomes are uncontrollable" (p. 105). Additionally, Seligman, Klein and Miller (1976) have stated that the learned-helplessness model is "...compatible with more facts of depression than alternate theories we have viewed" (p.186). Texts dealing with various aspects of depression routinely cite this model, indicating its widespread acceptance as a viable way of understanding and treating the disorder (e.g., Alloy, Kelly, Mineka & Clements, 1990; Nolen-Hoeksema, 1990; Rehm, 1990; Nezu, Nezu & Perri, 1989).

Hiroto & Seligman (1975) have shown learned-helplessness to be generalized across a variety of tasks. This was accomplished by employing several pretreatments with two tasks (shuttle-box escape and anagram-solution testing). They conducted four simultaneous experiments with college graduates which involved a pretreatment with inescapable, escapable or control tones or discrimination problems. This pretreatment was followed by either

shuttlebox-escape testing or anagram-solution testing, respectively. Learned helplessness was found in all experiments, i.e., subjects pretreated with insolvable puzzles or inescapable aversive tones failed to solve puzzles or to avoid tones when they were able to do so.

Results of these experiments led Hiroto & Seligman to "...suggest that the process induced by uncontrollability may be the rudiment of a 'trait'" and, further, "...that learned helplessness may involve a trait-like system of expectancies that responding is futile" (p. 327). There is some evidence, then, that a learned-helpless orientation may manifest itself across contexts. This finding has led researchers to apply this construct to achievement situations. These findings will be discussed in the following section.

Model Applied to Achievement Situations

The learned-helpless model has been applied to a wide range of achievement or goal-attainment situations. Fincham, Hokoda, and Sanders (1989), for example, assessed test anxiety levels and collected information on grades, standardized achievement test scores, and teacher ratings of goal attainment behaviors of 87 third graders. This same information was again collected when these students were fifth graders. They found third grade helplessness

indicators to be significantly related to fifth grade achievement test scores. They also reported teachers' reports of helplessness to be significantly related to students' helplessness scores as determined by an instrument routinely used to indicate an individual's level of helpless or mastery-oriented behaviors (Crandall, Katkovsky and Crandall, 1965). As a result, teacher ratings were judged to be a viable means of indicating a student's degree of helplessness.

Nolen-Hokesema, Girgus and Seligman (1986) collected data for 168 third, fourth and sixth graders. This information included standardized achievement test scores, learned-helpless/mastery-oriented ratings of these children (as perceived by their teachers), and each child's symptoms of depression. They found all of these to be significantly correlated, demonstrating the pervasive influence of these orientations on an individual's achievement and behavior.

Brunstein and Olbrich (1985) have found that students credit failure to either inappropriate problem-solving strategies or to a lack of ability. They asked 32 introductory psychology students to solve discrimination tasks. Those individuals who tended to work harder on such tasks, relating failure to inappropriate problem-solving strategies, were labeled "action oriented". In contrast, those individuals who tended to express failure as a lack of ability were labeled "state oriented". The researchers

borrowed these labels from Kuhl (1981) who had originally defined them in the following manner. Action-oriented individuals were those who focused "...on action alternatives and plans that serve to overcome discrepancies between a present state and an intended future one" (p. 159). In contrast, state-oriented individuals were those who focused on the present state in an achievement situation that has been created by failure.

Parallels between these behaviors and those of learned-helpless/mastery-oriented individuals can be drawn. Action-oriented individuals seem to behave in a mastery-oriented way, attributing failure to inappropriate problem-solving strategies. The chance for success, for these individuals, is constantly within their control through increased or refocused effort. State-oriented individuals attribute failure to a lack of ability and appear to be preoccupied with this current state of affairs, perhaps precluding the chance for future success. This attribution and preoccupation with failure, of course, is a learned-helpless response.

The learned-helpless model is also used to explain performance deficits in those subjects exhibiting such an achievement orientation. In fact, a majority of learned-helpless research from the past two decades has been devoted to the measurement and analysis of these deficits. Examples of these studies investigating the effects of this

phenomenon on achievement will be dealt with in depth later in this review.

First, however, the need for a reformulated theory of learned helplessness will be discussed. The learned-helpless model, as it existed, did not fully account for the complexity of human behavior in achievement situations, nor did it explain the mechanisms of learned helplessness. Because the performance deficits of a learned-helpless orientation had been routinely demonstrated to be so overwhelming (e.g., Craske, 1985; Dweck, 1975; Stipek & Kowakski, 1989), researchers needed to more fully understand its underlying causes. The reformulated theory was an attempt to do just that.

The Need for a Reformulated Theory

As noted previously, early learned-helplessness investigations involving humans were replications of animal studies and simply sought to identify the manifestation of this phenomenon. While learned helplessness was found to exist in these subjects, the original model became insufficient to account for the intricacies of such an orientation in humans. Specifically, Blaney (1977), Weiss, Glazer, & Pohorecky (1976), and Wortman & Brehm (1975) have questioned the wholesale application of this model to humans. They have posited the following questions: (1) is

uncontrollability sufficient to cause learned helplessness or did the particular situation have to first be perceived as aversive/important to the subject for the concomitant performance decrements to be observed; (2) what factors determine the generality of learned helplessness; and (3) what factors determine the chronicity of such performance decrements? The issues addressed by these questions create a much more realistic, albeit complicated, environment for the development of a learned-helpless orientation within humans.

In an attempt to understand the salience of an individual's perceptions in achievement situations, attribution theory has also been pulled within the umbrella of learned helplessness. Credit must be given to Heider (1958), the originator of attribution theory, for outlining the four perceived causes of success and failure (ability, effort, task difficulty, and luck). Further, Weiner et al. (1972) have included these causes within a two dimensional taxonomy. Essentially, ability and effort are causes that come from within the person, while task difficulty and luck are external. In addition, ability and task difficulty are more or less stable factors, while effort and luck imply situations that are variable.

Table 1 shows ability to be an internal and stable cause (it is a characteristic of the person that does not change), while effort is an internal, unstable cause (it

also comes from the person, but can increase or decrease from moment to moment). Similarly, task difficulty is an external, stable cause (it is outside an individual's control and will not change), while luck is an external, unstable cause (outside an individual's control, but variability is implied).

	LOCUS OF CONTROL	
STABILITY	INTERNAL	EXTERNAL
STABLE	Ability	Task Difficulty
UNSTABLE	Effort	Luck

Table 1. Classification schemes for the perceived determinants of achievement behavior (From Weiner, 1974, p. 6).

Since this theory was first espoused, Weiner (1986) has admitted that "...the potential causes of an achievement-related outcome are infinite, and in most studies there is an idiosyncratic, salient cause of success such as personality, charismatic style, cheating, or arousal during the test" (p. 37). He goes on to note, however, that many of these causes overlap and that effort and ability predominate. He says, "In nearly all the reported investigations, how competent we are and how hard we try are

the most frequently given explanations of success and failure" (p.40, underline mine). This sentiment guides current attribution theory as espoused by Weiner. Further, these perceptions appear to be the key to all individuals regarding personal successes and failures.

Abramson, Seligman, & Teasdale's (1978) reformulated theory of learned helplessness takes into account the attributions humans make for achievement situations as espoused by Weiner. They believe that humans with a learned-helpless achievement orientation first ask why a situation exists, rather than simply and mechanically noting that it does. Resulting causal attributions then determine how generalized and long-lasting such deficits become. It is the reformulated theory that guides a majority of research endeavors in this area (e.g., Hill & Larson, 1992; Pillow, West, & Reich, 1991; Stipek & Kowalski, 1989).

Learned helplessness, according to the reformulated theory, may depend upon the following sequence of events. First, the individual perceives that certain outcomes and personal response capabilities are independent of one another (this is referred to as "objective noncontingency", Abramson et al., 1978). This individual then makes an attribution about the cause which, in turn, determines his/her expectation for future noncontingency. It is this expectation that determines the generality and chronicity of

performance deficits. This sequence is summarized in Figure 1.

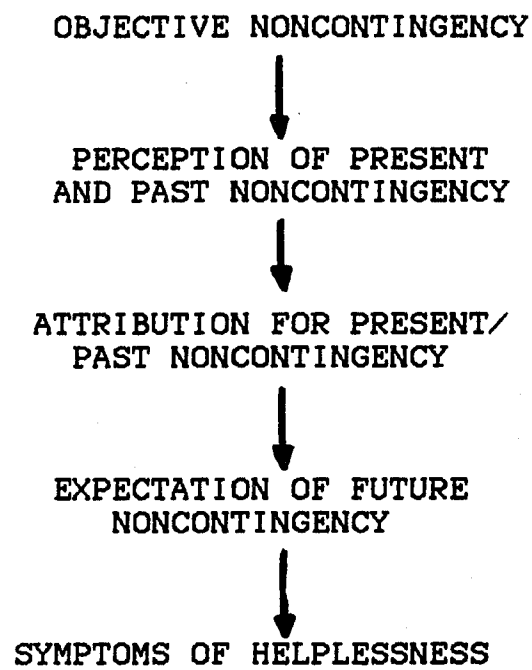

Figure 1. Hypothesized sequence of events leading to a learned helpless orientation. (From Abramson et al., 1978, p. 52).

An example may help illustrate this process. A seventh-grader is asked to shoot a hockey puck into a goal from a certain distance. This individual has attempted this task in the past with very little success and, as a result, has come to believe that he is simply incapable of doing what is asked (objective noncontingency). He attributes this perceived inability to a lack of ability, making future

success with such a task all but impossible. This explains his chronic assertion that what is asked is simply beyond his capability to respond (the "I can'ts"). Additionally, it seems quite natural for this logic to pervade other achievement situations (e.g., math, reading, water skiing), thereby "explaining" the purported generalizability of learned helplessness (e.g., Burns & Seligman, 1989; Fincham, Hokoda, & Sanders, 1989; Reynolds & Miller, 1989.)

Abramson et al. (1978) classified people's attributions for outcomes into three categories or dimensions: (1) internal-external, (2) stable-unstable, and (3) global-specific. This latter dimension had its origin with their reformulated theory, while the former two dimensions have been routinely employed by other attribution researchers (e.g., Weiner et al., 1972).

The internal-external dimension is generally used to differentiate between causes stemming from the person (internal) to those encountered due to environmental factors (external). Stable causes can be viewed as chronic, whereas causes seen as unstable are short-lived or sporadic in nature. Finally, global causes are encountered across situations; specific causes tend not to be experienced outside of particular contexts.

Abramson et al. predicted that internal factors are more likely to affect self-esteem. Stable factors, on the other hand, produce results that tend to last, while global

factors produce generalizable deficits, i.e., those that will manifest themselves across contexts. Also, the magnitude of the particular dimension affects the degree of debilitation.

These dimensions are seen as interacting with one another. Consider the example of a student who is taking part in a series of volleyball skills tests. The first test involves bumping the ball to a target and she believes she has done poorly. Within the three dimensions, this individual can make eight attributions about the cause of her poor performance (Internal-External X Stable-Unstable X Global-Specific). These choices can have quite different implications on how she will do with her next skills test (generality of the helpless situation), in volleyball class in the future and, perhaps, with sports in general (chronicity of the deficit).

According to the Abramson et al. (1978) reformulated theory, if this individual chooses any global attributions for a poor performance on the bump, the deficits will continue as such attributions imply continued response-outcome independence. If she decides her low score was caused by her lack of athletic ability (an Internal, Stable and Global attribution) or her lack of energy (Internal, Unstable, Global) or the fact that these tests are always too hard (External, Stable, Global) or that today just started off wrong (External, Unstable, Global), she

will expect her performance on the next skills test to be poor as well.

If specific attributions are employed, this individual may be able to overcome the poor performance. For example, if she attributes it to her difficulty with that particular skill (Internal, Stable, Specific), to the unfairness of <u>that</u> test (Internal, Unstable, Specific), to the stinging of the ball upon contact (External, Stable, Specific), or to her uncooperative partner (External, Unstable, Specific), her performance on the next skills test may not be affected. Table 2 summarizes these eight attributions.

	INTERNAL		EXTERNAL	
	STABLE	UNSTABLE	STABLE	UNSTABLE
GLOBAL	Low sports ability	Tired	Tests too hard	It's bad day
SPECIFIC	Not a good bumper	Unfair test	Ball hurts arm	Partner unco-operative

TABLE 2. Three dimensions of attributions (From Abramson et al., 1978).

The reformulated theory of learned helplessness, then, takes into account an individual's causal interpretations of uncontrollable events.

Nezu, Nezu & Perri (1989) suggest that people demonstrate consistency in their explanation of uncontrollable events. That is, individuals tend to credit similar causal explanations for a variety of negative life events. They also credit the reformulated theory with predicting that individuals who routinely offer internal, stable, and global causes for such outcomes run a very high risk of becoming helpless when faced with negative events that are seen as uncontrollable.

Wortman & Brehm (1975) have raised an interesting issue concerning the widely held assumption that the effects of learned-helplessness are indeed negative and, thus, the importance of retraining or redirecting such behaviors. They suggest that a helpless orientation is actually desirable in those situations where personal control is not possible. A job that is truly unattainable, a romantic interest that is not returned, or an illness with no cure are examples of such situations. It is Wortman & Brehm's contention that giving up in these situations is actually the most adaptive response. Trying to gain control over an uncontrollable situation, after all, can lead only to frustration.

They cite two studies, one animal and one human, to corroborate this contention. In both of these investigations, subjects with prior control experience (i.e., they were pretreated with experimental situations over which they could exert personal control) were found to persist longer in uncontrollable situations than those with no prior control experiences (Seligman & Maier, 1967; Glass & Singer, 1972). Additionally, Weiss (1971a, 1971b) has found stress level to be a function of coping attempts; thus an organism exhibiting persistence in an uncontrollable situation would experience more stress than an organism that becomes passive. Taken together, these studies foreshadow the deleterious effects of persisting in truly uncontrollable situations.

Given these findings, the best therapy may be to first provide training in the recognition of the difference between controllable and uncontrollable situations. This training would be a difficult task, of course, and is not the intent of this study. Perhaps the persistence that accompanies prior experiences with control has turned many situations, initially considered to be uncontrollable, into ones where control was actually possible. Giving up too soon in a classroom setting is, intuitively, a much greater danger than is a high level of persistence. It is this assumption that guides this research endeavor.

Causes of Learned Helplessness

Given the preceding information and evidence that a learned-helpless orientation holds up over time (e.g., Burns & Seligman, 1989; Nolen-Hoeksema, Girgus, & Seligman, 1992; Peterson & Seligman, 1988), learned helplessness may be viewed as a trait-like system of expectancies. Fincham, Hokoda & Sanders (1989) have described learned-helplessness as "...a relatively stable individual difference in children" (p. 142), while Hiroto & Seligman (1975) and Reynolds & Miller (1989) have used the terms "trait-like" or "trait", respectively, in their descriptions of the phenomenon. It leaves an individual with the perception of little or no control over outcomes in achievement situations.

Just what factor(s) causes an individual to give up personal responsibility in achievement situations? Perhaps an understanding of the origins of learned helplessness can help to alter such situations in order to prevent its occurrence. Although the precise sequence of events leading to a helpless orientation is unknown, its roots are not totally mysterious. Several authors posit similar circumstances for the cultivation of learned helplessness.

Seligman (1975) acknowledges that early experience with uncontrollable events may predispose a person to learned helplessness. Further, he suggests that noncontingent

rewards during childhood, i.e., a lack of control over outcomes, leads to helplessness during adolescence and adulthood.

Johnson (1981) contends that failing children (those who are helpless to control outcomes on academic tasks) should exhibit learned helplessness. She sees learned helplessness, then, as a naturally acquired trait in school when failure is routinely experienced. Reynolds & Miller (1989) echo this sentiment, stating that the phenomenon "...is an individual characteristic that evolves from multiplicative failure experiences in school" (p. 212). Additionally, they see these learned-helpless behaviors (particularly decreased persistence with tasks and causal attributions which give up personal control) becoming more differentiated and stable with age. Other researchers have suggested this developmental component of learned helplessness as well (e.g., Barker & Graham, 1987; Fincham & Cain, 1986; Hagan & Medway, 1989.)

Teachers have learned through experience that, more often than not, what they expect from their students is what they get in terms of student achievement. In turn, research has shown teacher expectancy effects to be a powerful motivator of a student's behavior (Rosenthal & Jacobson, 1968). Teachers have also learned through experience that behaviors intended one way are sometimes perceived quite differently by their students. Given this experiential

learning, one may logically ask can learned-helpless and mastery-oriented behaviors be induced or exacerbated by teacher expectations? Similarly, is teacher feedback perceived as intended?

Martinek & Karper (1982) have looked at low- and high-expectancy students in a physical education setting. While these labels are not totally synonymous with the learned-helpless and mastery-oriented paradigm, parallels may be drawn. Low-expectancy students are those from whom the teacher, for any number of reasons (e.g., physical appearance, past experiences with the child, reports from other teachers), expects little achievement. High-expectancy students are those from whom the teacher expects much. These researchers found little correlation between the amount of praise and encouragement given these students and their efforts in class. Although these teachers intended their praise and encouragement to motivate low-expecancy students and, thus, cause them to put forth more effort (i.e., become more mastery oriented), that effect was not achieved.

In a later study which corroborated these findings (Martinek & Karper, 1984), it was also found that low-expectancy students were given significantly more praise and encouragement by their teachers as compared to their high-expectancy classmates. Similar findings were also reported by Horn (1985) for junior high softball players.

Both groups of low-expectancy students exhibited significantly less effort and/or skill (as perceived by their teachers), however. Can this lack of correlation be attributed to a student's perceptions of the meaning of such praise and encouragement? If students feel that this feedback is noncontingent with their performance, they may feel they are receiving it because the teacher expects very little from them. Thus, well meaning teachers may actually be making students more helpless by providing such noncontingent feedback. Since, in this case, a student's actual performance has little to do with the feedback he/she receives, he/she may accept little personal responsibility for outcomes. This lack of responsibility, of course, seems to be an antecedent to learned helplessness.

Additionally, low-expectancy students in the Martinek & Karper studies (1982, 1984) tended to internalize a teacher's corrective behavior feedback (e.g., the teacher was "mad" because of something the student did). As a result, these students may see their misbehavior as a relatively stable trait. This interpretation may, in turn, be an indication of a low self-concept, allowing learned helplessness to develop.

In contrast, high-expectancy students in these studies tended to attribute corrective behavior feedback externally (e.g., to the teacher's "bad mood"). Thus, these teacher behaviors would seem to have little, if any, negative

effects on a child's self-concept. These high-expectancy students may tend to be mastery oriented as a result.

This general finding was also supported by Mros (1990) who looked at low- and high-expectancy students and their interactions with teachers in a physical education setting. The comparison of the low-expectancy student to the learned-helpless student, then, seems to be useful to the classroom teacher in his/her efforts to identify and work with such individuals. Certainly, teachers should be mindful of their expectations and how such are actually perceived by their students.

Success and failure are a consistent and visible part of school. While efforts to avoid excess emphasis on failure are admirable, its pervasive influence seems to be unavoidable in the scholastic environment. Certainly the absence of a star or happy face on an individual's work or its exclusion on a "Best Work" bulletin board or consistently overlooking a student's performance in physical education class sends the message that this student does not "measure up". When these occurrences become the norm for a child, poor grades and their concomitant problems (e.g., increased pressure from teachers and parents as well as various sanctions imposed by the school and home in an effort to "straighten out" the child) are forthcoming. Unless this child is helped to take control of the situation

and, through his/her personal action, to alleviate it, helplessness seems to be the logical consequence.

The increased emphasis on quantifiable results in schools today can only facilitate this debilitating process. Perhaps now, more than ever, the need for an insulation from the learning deficits of learned helplessness is paramount. Additionally, the social context of the scholastic environment has been shown to exacerbate the effects of a learned-helpless orientation. These effects are the subject of the following section.

Learned Helplessness in the Classroom

The word "typical" seems woefully inadequate to describe classrooms of today at any level. The singular fact that these classrooms are inhabited by approximately 30 completely different human beings with backgrounds and resulting needs as varied as can possibly be imagined, insures they will be, at the very least, dynamic areas of human interaction. When a teacher attempts to employ unbelievably diverse curricula given him/her by school boards in vain attempts to appease every conceivable political agenda, a deeper appreciation of such dynamics is gained. It is in this environment that learned-helpless and mastery-oriented behaviors are nurtured.

It is useful to view learned-helpless and mastery-oriented behaviors as opposite ends of an achievement continuum. Learned-helpless behaviors are those, with few exceptions, which are debilitating to individual achievement e.g., giving up easily, utilization of inferior problem-solving strategies, self-esteem deficits (Diener & Dweck, 1978; Fincham & Cain, 1986). It is viewed as a generalized construct, manifesting itself across a wide range of achievement situations (Dweck & Goetz, 1978; Fincham, Hokoda, & Sanders, 1989; Reynolds & Miller, 1989). As has been stated, however, there seems to be little empirical evidence that learned helplessness is indeed generalizable across contexts. I will go into greater detail concerning this issue later.

Individuals with a learned-helpless orientation tend to take little personal responsibility for any of their successes. Instead, they attribute these outcomes to less stable factors outside their control (e.g., to the ease of the task or the good mood of their parents/teachers). Failure, on the other hand, is generally attributed to internal and relatively stable factors. These frequently involve a lack of ability. This perceived ability deficit causes learned-helpless students to give up quite easily in the face of difficulty, even to the point of not attempting tasks that are, in fact, within their ability.

A mastery orientation, conversely, is predominately a facilitating influence on an individual's achievement outcomes. Mastery-oriented students take credit for their achievements, frequently attributing such success to their own effort, a factor over which they exercise total control. Failure is also within the control of this student. It is also generally attributed to a lack of effort rather than to a lack of ability as with the learned-helpless student. This variable effort factor, in practice, makes future success inevitable. The mastery-oriented individual must simply work harder for this possibility to be realized. In fact, a characteristic of mastery-oriented students is the incorporation of more sophisticated problem solving strategies when difficulty with a task is initially experienced. Persistence and eventual success with such a task is often the result.

For example, Dweck (1975), in an effort to establish baseline measures, asked elementary-aged subjects to work on a repetition-choice task (a 24-piece jigsaw puzzle). These students were divided into helpless and persistent (analogous to mastery oriented in this regard) groups based on teacher ratings. Both groups, after finishing the first puzzle, were stopped short of completion on the second puzzle. They were then given the choice of completing either puzzle. The decision to work on the already completed puzzle was a sign of their desire to avoid failure

and, thus, as a lack of task persistence. In contrast, the decision to proceed with the second puzzle was interpreted as a desire to succeed and a willingness to stay with a task. Nine of twelve helpless students chose to reconstruct the already completed puzzle, while eleven of twelve persistent students chose to finish the second puzzle, effectively demonstrating the persistence differences between these groups.

Dweck & Goetz (1978) have summarized several investigations with similar findings concerning significant differences in task persistence behaviors between helpless and persistent groups. It has been found that mastery-oriented students who continually experience difficulty with a task, will eventually attribute this chronic failure away from themselves and to external factors such as the task's difficulty or the bad mood of the parent or teacher (Martinek & Griffith, 1992). This defense mechanism may insulate these students from the stigma of internally attributed failure, thereby keeping the chances of future success high.

Developmental Differences

Age must be taken into account when studying children's perceptions of a teacher's feedback. Very young children, for example, see ability and effort as synonymous (Nicholls,

1978). Success for these children may be seen as putting forth maximal effort. In an attempt to examine the maturity of children's reasoning concerning ability and effort, Nicholls has explored the degree to which these two constructs are differentiated (Nicholls, 1978; Nicholls & Miller, 1984a, 1984b). This research suggests a developmental component involved in the process of differentiation. Very young children (ages four to eight) see effort as outcome or ability. They tend to focus on effort in achievement situations, feeling that those who try harder are smarter and, thus, will succeed.

Gradually, a child's reasoning about ability and effort matures. This maturational process is evidenced by the complete differentiation of these constructs which generally occurs by early adolescence (ages twelve to thirteen). At this level, ability is seen as capacity which either limits or increases the effect of effort on performance. Young children, according to these researchers, judge ability to be higher when effort is higher. Adolescents, on the other hand, judge ability to be higher when effort is lower (when outcomes are equal).

From this evidence, it follows that effort feedback may be taken differently depending on the age of the child. Effort feedback is any information given a child that links his/her achievement outcomes to personal effort. With equal outcomes (e.g., test scores, motor performances), younger

children may respond more readily to effort feedback. Adolescents, in contrast, may perceive a lack of ability due to such feedback. This misinterpretation, of course, would exacerbate the effects of learned helplessness on such children!

It must be pointed out that Nicholls and Miller convinced subjects that their performances were equivalent. Thus, the children's ability/effort conclusions were based on that assumption, that the scores of two children were indeed the same on some task. Therefore, younger children judged the harder workers as smarter while adolescents viewed the lazier students as smarter. When working with adolescents, then, the teacher must be sure that unacceptable levels of performance are first perceived as such by the student, facilitating the positive effects of effort feedback. This issue will be discussed later.

Social Comparison Effects

It is the author's intention to study learned-helpless and mastery-oriented students in the classroom setting. While this environment causes the researcher to give up some control over the experimental situation, it is seen in this particular endeavor as the only way to obtain a more accurate view of the phenomenon, given its demonstrated influence by the presence of others.

Researchers have documented the effects of social comparison information on an individual's perception of competence and affect (e.g., Fincham, Hokoda, & Sanders, 1989). Further, it has been demonstrated that helpless performance deficits may be contextually based. For example, Ames (1984) studied the effect of competitive versus individualistic goal structures on children's achievement attributions and self-instructions. Eighty-eight fifth and sixth graders (equal numbers of males and females) from a pool of 200 from ten classrooms in a Maryland County School Corporation took part. They were classified by their teachers within one of three achievement levels (high, medium and low) according to their performance in reading and language arts. Next, these students were randomly assigned to a competitive or individualistic goal structure condition. Each group was presented two sets of six-line puzzles. The children's task was to trace over all lines of each puzzle without lifting their pencils or retracing lines. Solvable and insolvable forms of the puzzle were constructed. A high- versus low-performance outcome was created by varying the number of solvable and insolvable puzzles given to a particular group. A high-performance outcome involved four solvable and two insolvable puzzles in the first set, followed by five solvable and one insolvable puzzle in the second set. The low-performance outcome consisted of one solvable, five

insolvable first-set puzzles and two solvable, four insolvable second-set puzzles.

Goal structure was varied according to the instructions given to students. In the competitive condition, students worked in pairs and were encouraged to solve more puzzles than their partner. Children worked alone in the individualistic condition and were simply told to complete as many puzzles as they could, trying to improve in the second set.

Findings indicated the manifestation of learned-helpless and mastery-oriented behaviors in children who were not preselected for achievement orientation. In other words, children operating within the competitive goal structure used more ability attributions (a learned-helpless characteristic) as compared to those in the individualistic condition. Further, those in the competitive condition failed to make use of self-instructions, but focused on the question, "Am I smart?" In contrast, children in the individualistic condition, in addition to using significantly more self-instructing behaviors, concentrated on the question, "How can I do this task?" For this group, effort attributions, a characteristic of mastery- oriented individuals, were more frequently used. A student's achievement level had no effect on outcome.

Hokoda, Fincham & Diener (1989) have demonstrated the variable effects of social comparison information on fifth

graders according to their achievement orientation. They found that learned-helpless and mastery-oriented children differed in their interpretations of this information. When presented with group failure information (i.e., that three same sex fifth graders from another school had received similar scores) following their own failure, mastery-oriented children stated that the task was too difficult, thus using this social comparison information accurately. Learned-helpless children, in comparison, tended to disregard this feedback and to attribute failure to their own lack of ability. It seems, then, that learned-helpless children not only fail to experience success, as Dweck & Licht (1980) have noted, but they also ignore social comparison information that clearly points to the difficulty of a task. This attribution, if employed, might save them from the negative effects of yet another failure experience.

Moore, Strube & Lacks (1984) had 40 undergraduates complete an Attribution Style Questionnaire (ASQ, Peterson, Semmel, von Baeyer, Abramson, Metalsky & Seligman, 1982) to determine their general attributional patterns. Those who tended to take personal control of situations (analogous to a mastery orientation) were classed as "Internals", while those who did not take such control were classed as "Externals" (more of a learned-helpless orientation). The first phase of the experiment consisted of a 30-minute practice session with unsolvable puzzles for half of the

group and the same exposure to solvable puzzles for the remainder of the group. In Phase II, all subjects were presented with twenty solvable anagrams arranged in a consistent pattern. Half of these subjects worked alone during this phase, while the other half worked in the presence of a confederate of the experimenter (who always had a solvable puzzle). All subjects were given 100 seconds to solve each puzzle. Dependent variables included: (1) response latency for the anagrams, (2) trials to criterion (i.e., three consecutive anagram solutions obtained in under fifteen seconds each), and, (3) the mean number of failures to solve (i.e., taking longer than 100 seconds).

Internals seem to have made the most positive use of social comparison information (i.e., working in the presence of a successful other) as those who failed in the presence of successful confederates, also succeeded on subsequent trials. They may well have realized that, due to the success of this confederate, personal success was indeed possible. Additionally, their own internal attributional pattern of taking control of the situation facilitated eventual success with the task.

Those subjects identified as Externals, who failed in the presence of successful confederates, did not improve on subsequent trials. These individuals seem to have used the social comparison information in a debilitating manner,

perhaps attributing their own failure to a lack of ability. In this mindset, future success may be precluded.

Jagacinski & Nicholls (1987) studied the effects of social comparison information on 162 undergraduates in task-involving and ego-involving contexts. Task-involving activities are those performed for their own sake and are frequently a part of an individual's leisure time. Ego-involving activities are those for which an outstanding performance is perceived to be very important. In fact, individuals would experience negative affect if they performed below average on tasks of this nature.

Subjects were asked to imagine engaging in one of these types of activities and then to imagine success in the activity with low or high effort. Social comparison information was provided by informing the subjects of "others" who had found these tasks easier or harder than themselves.

In the absence of social comparison information, competence and affect were judged higher in both contexts when subjects imagined succeeding with high versus low effort. The effect of social comparison information was significant in the ego-involving context. This could be analogous to the competitive environment found in schools.

When students who had imagined success with high effort were informed that others had performed as well with less effort, their perceived competence decreased while negative

affect increased. Further, similar decreases in perceived competence and positive affect and increases in negative affect accompanied social comparison information in task-involving contexts when the lower effort of others was emphasized.

Finally, Feinberg, Mathews & Weiss (1989) found learned helplessness to be a function of the uncontrollability of a particular event as well as social comparison information. Fifty undergraduates were randomly assigned to solvable (controllable) or unsolvable (uncontrollable) discrimination learning tasks either alone or in the presence of others, who served as passive observers or coactors. After some experience with these tasks, subjects were presented with a solvable anagram task which they worked alone.

Essentially, it was the contention of these researchers that they had induced helpless behaviors onto the subjects assigned to the unsolvable group. These helpless subjects, as well as those working in the presence of others, were found to exhibit helpless behaviors. Specifically, these subjects took longer to respond in the twenty-item anagram task, took more trials to reach criterion (the same level as in the Moore et al., 1984, study) and experienced more failures when compared to subjects who had previous experience with controllable tasks and those who worked alone.

An impaired performance seems to result from a learned-helpless achievement orientation and from negative social comparison information, i.e., that someone else is doing better (or the same with less effort). Social comparison information is abundant in schools, given the quantity-driven curriculums which abound in an effort to "prove" a school's effectiveness. Although these studies have taken place in classroom settings, parallels to the physical education setting can be assumed. Intuitively, the physical education setting, where physical performance is emphasized, provides an even greater opportunity for competition and social comparison. It is, after all, impossible to participate in such an environment without performing in the presence of others and very difficult to simply "disappear" if one chooses not to participate. Therefore, all classroom contexts included in this investigation provide the opportunity for individuals to exhibit their achievement orientations.

Identification of the Learned-Helpless Child

Learned-helpless and mastery-oriented children, prior to failure, are indistinguishable on performance measures such as speed, accuracy and sophistication of problem-solving strategies, as well as on standardized measures of intelligence (Dweck & Licht, 1980). The

performances of these two groups following failure, however, are strikingly different. Three factors have served as the basis from which protocols for the identification of learned helpless students have been developed: (1) attributions for success and failure, (2) a lack of task persistence and deterioration of problem-solving strategies, and, (3) the fact that adults (usually teachers) who are familiar with the capabilities of these children can accurately assess their respective orientations through observation of such behaviors. This section will be devoted to looking at these three areas for the purpose of identifying the learned-helpless child.

Assessing Causal Attributions

Early studies of the learned-helpless phenomenon, as it is manifested in humans, were simply an extension of prior animal research (e.g., Hiroto, 1974; Fosco & Geer, 1971; Thornton & Jacobs, 1971). The complexity of the human situation caused others (e.g., Wortman & Brehm, 1975) to question the wholesale acceptance and applicability of this model which eventually led to the reformulated theory (Abramson et al., 1978). This reformulation, of course, centers around the causal attributions made by humans for their successes and failures. It is these attributions that initially cause a person to ask <u>why</u> he/she is helpless

which, in turn, determines the chronicity and generality of such helplessness. Given the importance of causal attributions in understanding human helplessness, it is easy to appreciate the need to measure such attributions in order to determine an individual's achievement orientation.

Causal attributions are routinely assessed through a variety of inventories which can be efficiently administered either verbally or in written form. These inventories have at least two common characteristics. First, they purport to determine whether individuals routinely use internal or external attributions for their successes and failures. Also, they usually pose hypothetical achievement situations to respondents, requiring decisions from these individuals which reveal their achievement orientations.

The Attributional Style Questionnaire (ASQ, Peterson et al., 1982) was designed to measure "...causal attributions offered by depressives for the good and bad events in their lives" (p. 287). It purports to assess the degree to which individuals ascribe the causes of these events to the internal (versus external), stable (versus unstable), and global (versus specific) attributional dimensions as delineated by the reformulated theory of helplessness (Abramson et al., 1978).

The Mastery Oriented Inventory (MOI, Reynolds & Miller, 1989) was developed as a generalized measure of helplessness. Its authors have duly noted the abundance of

learned-helplessness research with elementary-aged children and adults, but the conspicuous absence of such with adolescents. The goal of the MOI is to fill this void. These researchers also view learned helplessness and a mastery orientation as opposite ends of an achievement-behavior continuum. As a result, they developed 50 statements reflecting learned-helpless or mastery-oriented functioning in an academic environment. Respondents are asked to utilize one of three Likert-type answer choices (most of the time, some of the time, or almost never).

The Intellectual Achievement Responsibility Scale (IAR, Crandall et al., 1965) is an instrument designed to assess "...children's beliefs that they, rather than other people, are responsible for their intellectual-academic successes and failures" (p.91). It appears to be the inventory of choice among attributional researchers given its frequently cited status in this body of literature (e.g., Dweck, 1975; Fincham et al., 1989; Licht & Dweck, 1984; Meyer & Dyck, 1986).

Although the IAR has been used frequently in learned-helpless research, some researchers have cited its shortcomings in accurately assessing the degree to which children exhibit a learned-helpless or a mastery orientation (e.g., Fincham, Hokoda & Sanders, 1989). While the IAR allows children to choose between internal and external attributions for their successes and failures, it does not

allow them to differentiate between their own effort or ability as the perceived cause of such outcomes. The effort/ability distinction has become THE way of distinguishing these polar achievement orientations. As a result, these researchers have developed their own scale to do just that. These scales are frequently used and cited, but rarely published. This author has received several such examples and have found them to be a modification of the achievement situations already discussed with two answer choices: one centers on personal effort and the other on one's ability as the cause of an outcome. Some sample items from the Children's Ability/Effort Scale (CAES, Fincham, Hokoda & Sanders, 1989), which is representative of these efforts, are included in Figure 2.

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1. When you have trouble understanding something in school, is it usually
   ____ A. because you aren't good at listening, or
   ____ B. because you didn't try to listen carefully?

2. When you don't do well on a test in school, is it
   ____ A. because you didn't study for it, or
   ____ B. because you aren't good at taking tests?

FIGURE 2. Sample items from the Children's Ability/Effort Scale (CAES, Fincham, Hokoda & Sanders, 1989)

Task Persistence Measures

Another characteristic of learned-helpless individuals and, perhaps, the aspect that makes them so difficult to deal with, is their lack of task persistence. From the initial animal research (Overmier & Seligman, 1967; Seligman & Maier, 1967) to more recent research with human helplessness (e.g., Fincham et al., 1989; Dweck, 1975), individual performances were found to be significantly impaired following failure when compared to mastery-oriented subjects.

The impact of failure on learned-helpless individuals is dramatic. Diener & Dweck (1978) compared learned-helpless and mastery-oriented fifth graders as they worked on a discrimination task and monitored their level of hypothesis-testing strategies. Prior to failure, both groups displayed a considerable number of useful task strategy statements. Once failure was experienced, however, and as it continued, the performance of the two groups differed dramatically. As performances of learned-helpless children deteriorated, they began to attribute these failures to a lack or a loss of ability. Additionally, they began to express a dislike of the task, although they had appeared quite content with it only moments before. In contrast, the mastery-oriented children made few failure

attributions. Rather, their present lack of success was seen as a brief state. Task involvement increased and problem-solving strategies became more sophisticated. Statements reflecting a "welcomed challenge" were offered, indicating these students' positive affect for the task even while experiencing difficulty. One can readily understand how such attitudes lead to improved performances.

Dweck & Licht (1980) offer a summary of performance-related verbalizations expressed by learned-helpless and mastery-oriented students during failure experiences. Learned-helpless students made significantly more statements concerning ineffectual task strategies, negative affect for the task, and those deemed solution irrelevant as compared to mastery-oriented students. Further, learned-helpless students attributed their difficulties to a lack or loss of ability, a strategy altogether ignored by mastery-oriented individuals. These students, in comparison, provided significantly more self-instructing and self-monitoring statements, as well as those concerning positive task affect and prognosis. One can also understand how self-defeating behaviors employed by learned-helpless individuals lead to negative affect, poor performance and, eventually, to a withdrawal from the task. Mastery-oriented behaviors, in contrast, lead to task persistence and to an improved performance.

As other studies (e.g., Dweck, 1975; Licht & Dweck, 1984; Stipek & Kowalski, 1989) have also pointed to the failure-driven performance decrements of learned-helpless students (and, perhaps, more importantly, the enhanced performances of mastery-oriented individuals), this characteristic can be considered stable and can thus be used to help identify an individual's achievement orientation. This identification may be accomplished formally by using standardized achievement test scores, for example, or it may be accomplished by a teacher comparing a student's present classroom performance with prior accomplishments. The efficacy of teacher observations of task persistence (or lack thereof), sophistication of problem-solving strategies (or their deterioration) and causal attributions in the identification of learned-helpless individuals is well documented and will be discussed in the following section.

Teacher Ratings of Achievement Orientations

Considerable empirical information exists attesting to the accuracy of teacher ratings in identifying learned-helpless and mastery-oriented behaviors in students. For example, Fincham, Hokoda & Sanders (1989), in a longitudinal study of elementary students, have found teacher reports to be a viable means of identifying helpless individuals. These researchers developed the Student

Behavior Checklist to facilitate this process. This 24-item instrument asks teachers to rate, on a five-point Likert scale, the extent to which certain learned-helpless and mastery-oriented behaviors describe their students.

Similarly, Reynolds (Reynolds & Miller, 1989) has developed the Global Helplessness Rating Scale (GHRS) to be used as an external source of validation for the Mastery Orientation Inventory (MOI). The GHRS was "...designed to provide teachers with a behavioral (operational) definition of the learned helpless-mastery oriented continuum (p. 211)." Thirteen teachers rated their students using this scale and it was found that learned-helpless and mastery-oriented behaviors are indeed observable.

Winograd and Niquette (1988) stressed the limitations of such measures which are attractive largely because of their ease of administration. They see the teacher's role as pivotal in the identification of learned helplessness in their students. As a result, they call for teacher observations (e.g., task persistence, withdrawal, defeatism, chronic worry, nervousness, students' perceptions of self, others, task and environment, and student verbalizations) and structured interviews to augment these observations, which focus on the child's perceptions and attributions.

Finally, Martinek & Griffith (1992) found a high degree of correlation between teacher ratings of helpless and mastery-oriented behaviors and their students' scores on a

physical education-specific, modified version of the IAR (Crandall et al., 1965). In this study, teachers were first presented brief descriptions of the constructs (learned-helpless students give up easily even though they possess sufficient ability, perhaps exhibit low self-esteem, ask for help frequently; mastery-oriented students see a task through to its completion, increasing effort in the face of difficulty). They were then asked to identify their own students who exhibited such behaviors most of the time. Agreements between those identified in this manner and IAR scores were almost unanimous (n = 11; Teacher Ratings and IAR agreement = 10/11, 90.91%).

Teacher ratings of a child's achievement orientation, then, seem to be powerful indicators of this construct. As such, they should be sought and can play an instrumental role in the identification of helpless individuals and in subsequent attempts to alleviate this debilitating orientation.

UNRESOLVED ISSUES IN LEARNED HELPLESS/MASTERY ORIENTED RESEARCH

The idea of a learned-helpless or mastery achievement orientation is intuitively appealing to those involved in maximizing a child's education. Several fundamental issues remain unresolved, however, precluding

the development of strategies to assist learned-helpless children in coping with this debilitating influence.

The first issue deals with the purported generalizability of learned helplessness. When helplessess is used as a framework to understand human depression, a growing body of research exists lending support to the globalness or generalizability of this achievement orientation (e.g., Burns & Seligman, 1989; Nolen-Hoeksema, Girgus, & Seligman, 1992). In a learning context, however, this body of research is scant. The vast majority of these researchers speak of this phenomenon as a construct that manifests itself across a wide range of achievement situations, but offer little empirical evidence of this generalizability. For example, Fincham, Hokoda & Sanders (1989) describe learned helplessness as "...a relatively stable individual difference in children " (p. 142). They report, however, that the actual relationship between the degree of learned helplessness exhibited by these subjects and their academic achievement, while statistically significant, is modest. They suggest this low correlation results from the use of only math and science standardized tests as a measure of academic achievement. Other academic areas are unrepresented in this study. It is difficult to understand how these researchers can, on the one hand, describe learned helplessness as a "...stable individual difference in children" (p.142), but then use achievement

test scores from only two classroom settings as their measure of this difference. Additionally, their choice to subjects used to make this distinction is somewhat questionable. After all, math and science subject matter, taken together, seems to require quite different types of student responses from the more open-ended environments usually found in a reading class or in the performing arts. A more accurate representation of a child's achievement orientation would result if a wider variety of subject-matter areas were included.

Similarly, Johnson (1981), Fowler & Peterson (1981), and Shelton, Anastopoulas, & Linden (1985) also subscribe to the generalizability of the phenomenon, but only use a child's score on standardized reading tests as a measure of his/her overall academic achievement. The lack of representation of other subject-matter areas leaves the question of the generalizability of a learned-helpless achievement orientation in a learning context largely unresolved. This study seeks to determine if learned-helpless and mastery-oriented behaviors generalize across a variety of learning contexts.

There is much evidence that a learned-helpless achievement orientation manifests itself in students in two ways: (1) a decreased persistence with learning tasks, and (2) altered attributions for successes and failures (i.e., these students generally refuse credit for successes, but

take the blame for failures), e.g., Dweck, 1975; Fincham, Hokoda & Sanders, 1989; Stipek & Kowalski, 1989. While the existence of these behaviors is well documented, it is generally taken from studies involving elementary-aged students, especially fifth graders, in classroom settings. Martinek & Griffith (1992) have found students' altered attributions for success and failure in the physical education setting, but this study involved students in the second and third grades only . Contexts not represented in this body of literature include adolescents in physical education and classroom settings. Given the pivotal importance of the adolescent years in an individual's personal development and fundamentally different requirements of a physical education setting, the inclusion of these contexts in this study will assist in the development of a more accurate description of learned-helpless and mastery-oriented behaviors. More specifically, the prevalence of social comparison information in the physical education setting and its importance to adolescents in general, coupled with the exacerbating effects of this information on learned-helpless behaviors makes these contexts particularly important to study. Additionally, (Reynolds & Miller 1989) contend that the learned-helpless and mastery-oriented behavior of adolescents may be even more stable due to a longer experience with the factors leading to such an orientation.

If this is true, the need for early intervention is imperative. Gathering additional information from the classroom performance and behavior of adolescents will help support or refute the generalization issue.

PURPOSE OF THIS INVESTIGATION

The overall purpose of this investigation is to document the existence and study the globalness of the learned-helpless phenomenon among middle school students. This age group has been selected for this study because previous research has focused almost exclusively on elementary school children. If elementary-aged children, who are frequently taught a variety of subjects by a single teacher, demonstrate learned-helpless or mastery-oriented behaviors across a variety of classroom contexts, it would be difficult to conclude that these orientations are indeed pervasive. This generalizability may, in fact, be a measure of various teacher factors more that a measure of what is taking place inside a student. Middle school students are most frequently taught by a variety of teachers. Therefore, any generalizability that may be exhibited by these students would seem to be a more reliable measure of this construct.

Students identified as learned helpless and mastery oriented were observed in math, physical education, and reading settings. Specifically, the task persistence and

causal attributions of target students in these three classroom contexts were observed in an effort to study the generalizability of these behaviors between a student's math, physical education, and reading classes. Comparisons were then be made between these results and existing research.

The specific research questions addressed by this investigation were:

(1) What are the task persistence differences between learned-helpless and mastery-oriented students?

(2) How does the difficulty of the task impact on the task persistence behaviors of learned-helpless and mastery-oriented students?

(3) What are the attributional differences between learned-helpless and mastery-oriented students?

(4) Do these differences manifest themselves in the three classroom contexts?

CHAPTER II

METHODOLOGY

In order to document the existence and examine the globalness of the learned-helpless phenomenon among middle school students, the following steps were taken. Once a sample population was chosen, learned-helpless and mastery-oriented target students were identified based on a modified version of the IAR (Crandall et al., 1965) and the ratings of their math, physical education, and reading teachers.

The students then took part in eight math, physical education, and reading lessons where they worked on individual tasks. These tasks were manipulated by each classroom teacher to be easier or harder, i.e., at the extremes of student ability. While engaged in these individual tasks, target students were observed by trained assistants in order to determine their persistence. Additionally, post-investigation interviews of target students assessed their attributions for successes and failures.

The instruments used in this investigation are discussed in detail. Further, the "Procedures" section of this chapter provides an in depth description of how task persistence and attributional profiles were acquired in math, physical education, and reading classes. A discussion

of how the data were treated statistically concludes this chapter.

Sample Population

A total of 197 sixth grade students from three schools located in Piedmont North Carolina represented the population of this investigation. These schools included a rural elementary (K-8) school (n=75; 39 males, 36 females, 25% minorities), a suburban, consolidated middle school (n=68; 35 males, 33 females, 11% minorities), and an urban middle school (n=54; 28 males, 26 females, 35% minorities). The inclusion of these three settings helped to ensure a more heterogeneous sample of students. Low to upper SES backgrounds were represented by these groups (rural school - low to upper-middle; suburban school - lower-middle to upper; urban school - lower to middle).

Students were divided into academically heterogeneous classes for physical education instruction which is taught on an alternating-day basis in the rural school, but on an every day basis in the other two settings. All classes were taught by physical education specialists whose teaching experience ranges from 2 to 26 years, with an average of 11.7 years in the gym. All three of these specialists were female. On their non-physical education days, the specialist conducted a health class with the students in the rural setting.

The students were homogeneously grouped for math and reading. This grouping (low, medium, and high) was determined by standardized test scores and previous achievement. Math and reading classes were taught by certified classroom teachers on a daily basis. There were 6 females and 1 male in the math classes who have been in the classroom from 3 to 23 years (average = 14.4 years). The reading classes were taught by 8 females and 3 males with a teaching experience range of 2 to 18 years (average = 10.7 years). All classes lasted 45 minutes.

Human subjects consent forms were sent home to the parents of all sixth graders briefly explaining the study. Only those children whose parents granted permission (80.3% of those originally contacted) were retained in the study and administered the following instruments. A copy of the consent form is included in Appendix A.

INSTRUMENTATION

A modified form of the Intellectual Achievement Responsibility (IAR) Scale (Crandall, Katkovsky, & Crandall, 1965) was used in this investigation to identify learned-helpless and mastery-oriented students. The original IAR Scale was developed to measure children's beliefs in internal versus external reinforment responsibility in intellectual-academic achievement situations. It consists

of 34 forced-choice items dealing with successes and failures in academic achievement situations. Students were asked to choose between two attributions for these hypothetical situations: internal (effort or ability) and external (e.g., ease/difficulty of the test, mood of the teacher, various peer influences). In order to validate this instrument, it was administered in its original form by Crandall et al. to 923 third through twelfth graders drawn from five different schools. This sample was chosen by the researchers in an effort to ensure a more diverse group of students. Forty-seven third, fourth, and fifth graders from this original sample were readministered the IAR after a two-month interval. Test-retest reliability was .69 for the total battery, .66 for the success items, and .74 for the failure items.

Internal consistency of the 34 items was reported by Crandall et al. to be moderate (.54 for success items and .57 for failure items). These values were determined from a random sample of 130 younger children chosen from their original group. The authors reported the instrument to be only moderately capable of measuring reinforcement responsibility, however. They have called for further refinement of the scale due to "...the inconsistencies and small magnitude of many of the relations found" (p.108). Since numerous researchers have used this original version of the IAR (e.g., Fowler & Peterson, 1981; Licht & Dweck,

1984; Stipek & Kowalski, 1989), it was assumed that this refinement had not taken place.

A ten-item subscale of the IAR has been most frequently used to identify learned-helpless and mastery-oriented children. These 10 items posit failure situations exclusively. It has been shown that the performance deficits of learned helplessness are more observable in these situations (e.g., Dweck, 1975; Johnson, 1981; Reynolds & Miller, 1989). This subscale requires students to choose between lack of effort and external factors for this outcome. Citing a lack of effort as the reason for failure is a mastery-oriented response. Accordingly, a score of ten on this subscale would indicate a strong mastery orientation, while a score of one would indicate a strong learned-helpless orientation.

Modified Form of the IAR Scale

Unfortunately, the subscale of the IAR does not allow students to choose between effort and ability when citing a reason for their failures. Rather children are able to choose between effort (an internal attribution) and various external attributions for this outcome. Given the importance of this distinction in identifying learned-helpless and mastery-oriented students, an Effort/Ability (E/A) Scale was developed for this investigation. The original 34 IAR items have been used and

three answer-choices provided, allowing students to choose between effort, ability, and an other attribution. This scale is included in Appendix B.

Similar scales have been routinely developed and utilized in motivational research (e.g., Fincham, Hokoda & Sanders, 1989; Fowler & Peterson, 1981; Shelton, Anastopoulas & Linden, 1985). They most often include only ten items, however. It was hoped that the inclusion of the additional items would yield a more accurate identification of a student's achievement orientation.

In keeping with previous research endeavors, only the failure items were used to identify learned-helpless and mastery-oriented students. In order to determine a correlation between the E/A Scale and the IAR sub-scale, both were administered to a sample group of students at one of the schools. This sample group was not involved in the study. The correlation between the IAR subscale and failure items on the Effort/Ability scale is .67. This correlation was judged to be acceptable by the investigator. If the correlation had been much higher, there would seem to be little need for the development of a scale separate from the IAR. If the correlation had been low, one could reasonably assume that the two scales were actually measuring two different constructs.

Test/retest reliability for the E/A Scale was .83. The test/retest and IAR-E/A Scale correlation information was

derived from a group of sixth grade students (n = 54) not involved in the study. The IAR and E/A Scales were administered approximately 10 weeks apart, while test/retest procedures were executed approximately 12 weeks apart. This interval is believed to be sufficient to negate any learning effects.

A stratified, random sample of ten, sixth grade students were administered the E/A Scale to determine how easily the three answer choices could be distinguished. Specifically, this group was asked to classify each answer choice as an ability, effort, or other attribution after hearing brief descriptions of these concepts. This group correctly classified 82.1% of these attributions initially. Answer choices that were incorrectly classified by more than 30% of this sample were reworded. A separate stratified, random sample of ten, sixth graders were then administered the revised instrument. This group classified 85.8% of the answer choices correctly with no single choices having more than 3 misclassifications. This is the form of the E/A Scale that was used in this investigation.

Recall that learned-helpless students usually cite a lack of ability as their reason for failure, whereas the mastery-oriented group usually cite insufficient effort or external factors as their reason for failure in the hypothetical classroom situations. Accordingly, only effort attributions for failure situations were considered

mastery-oriented answers, while ability attributions for failures were considered to be learned-helpless answers. External attributions were not used to classify students. A student's E/A Scale score, then, could range from a 0 (no effort attributions) to a 17 (all effort attributions). Accordingly, students with extreme scores were targeted.

Typically, students would choose a variety of attributions for these 17 items. As a result, the E/A Scale scores are expressed as a learned helpless/mastery oriented ratio. These ratios are included in Appendix D.

Teacher Ratings

Due to the efficacy of using teacher ratings to identify these achievement orientations (e.g., Fincham et al., 1989; Martinek & Griffith, 1992; Winograd & Niquette, 1988), this information was sought for this investigation. Math, physical education, and reading teachers were asked to group their students according to these instructions:

> Please indicate those students in your classes who usually expect to fail and when faced with failure, tend to give up.
>
> Also, indicate those students in your classes who usually expect to succeed and when difficulty is experienced, tend to work harder.

They rated the strength of these orientations on a five-point Likert scale. A "1" means that a student behaves

ALMOST EXCLUSIVELY in a learned-helpless manner, a "2" indicates that a student FREQUENTLY displays this behavior, a "3" is an indication that a child behaves about equally in either orientation, a "4" means a child FREQUENTLY behaves in a mastery-oriented manner, while a "5" is an indication that a child ALMOST EXCLUSIVELY behaves in a mastery-oriented way.

As a check for reliability of these teacher ratings, a test-retest protocol was followed and produced a correlation of .88. These two ratings were taken approximately three months apart. Students who scored at the extremes of the Effort/Ability Scale AND were identified by their math, physical education, and reading teachers as frequently behaving in a learned-helpless or mastery-oriented way (students not rated as "3s") were targeted for this study. A copy of the Teacher Rating Scale is included in Appendix C. Students chosen for inclusion in this investigation with their E/A Scale scores and Teacher Ratings are listed in Appendix D.

Identification of Target Students

As a result of the above procedures, 42 students were originally identified as scoring at the extremes of both measures (13 learned helpless and 29 mastery oriented). The 13 learned-helpless students represent 6.6% of the sample pool (n = 197), while the 29 mastery-oriented students is

14.72% of this total. There were a number of students who were identified as learned helpless or mastery oriented based on their E/A Scale scores, but their math, physical education, and reading teachers rated them as marginally learned helpless or mastery oriented. For example, a student identified as learned helpless, based on his/her E/A Scale score, may also have received a learned helpless rating from his/her math teacher. This individual's physical education and/or reading teachers, however, may have rated him/her as mastery oriented.

From the total sample pool, 3 students were rated as learned helpless in math (1.52%), 6 in physical education (3.05%), and 2 in reading (1.02%). There were far more marginally mastery-oriented students identified: 38 in math (19.29%), 39 in physical education (19.8%), and 32 in reading (16.24%). These percentages are reported in order to provide the reader with additional information concerning the existence of these achievement orientations in these three classroom settings.

While there was no way to know how many students from the three settings would eventually be identified as globally learned helpless or mastery oriented, it was decided at the study's inception to maintain equal numbers of students of each orientation at each school. When there were more students of one orientation than another at a particular school, those students who scored <u>most</u> extreme on

the E/A and Teacher Rating Scales were included in the study.

From the original 42 students identified as learned helpless or mastery oriented, 24 were chosen to participate in the study, based on extreme scores. One of these students moved before any observations had taken place, while another moved after task persistence measures had been taken, but before any causal attributions could be assessed.

Data sets, then, include information for 11 learned-helpless and 12 mastery-oriented students. The rural school provided 11 students (5 learned helpless, 6 mastery oriented), the suburban, consolidated school provided 8 students (4 of each orientation), and the urban school provided 4 students (2 of each orientation). Table 3 provides a summary of this information, including a breakdown of orientation, gender, and school setting. Refer to Appendix D for E/A Scale scores and Teacher Ratings of these target students.

SCHOOL	LH		MO	
	Male	Female	Male	Female
Rural	3	2	4	2
Suburban	2	2	3	1
Urban	2	0	1	1

Table 3. Breakdown of students involved in this investigation by school, orientation, and gender.

PROCEDURES

Since learned-helpless and mastery-oriented students are most frequently identified by their task persistence and causal attributions, these two measures were sought for the target students in this investigation. Additionally, it has been suggested that differences in these measures become greater as the difficulty of particular tasks increases. Therefore, task difficulty was also a variable.

Task difficulty (e.g., easier or harder physical education tasks) was manipulated for each lesson by the teachers in order to determine persistence for varying outcomes. Of special interest was a student's degree of persistence when a task was rated as harder and, as a result, failure with that task was a distinct possibility. It is important to note, however, that all tasks/assignments

were solvable throughout this investigation. Easier or harder tasks were simply at the extremes of student ability. These judgements were made by each classroom teacher.

At the conclusion of each class, teachers were asked to rate the difficulty of the lesson/task on a 10-point scale, with "1" indicating a very easy task and "10" an extremely difficult task. A numerical average was then calculated for each teacher's set of ratings. Lessons that received a rating as being numerically average or below were categorized as "easier," while lessons numerically above average were categorized as "harder."

In general, most teachers manipulated task difficulty in two ways: (1) altering an easier task (e.g., asking students to bump a volleyball 10 times without letting it hit the floor rather than allowing it to hit the floor between bumps or bumping it a fewer number of times), or (2) changing the task/assignment (e.g., asking more indepth questions thereby requiring higher level thinking skills. An example of an easier question in a reading setting: "Who were the two main characters?" An example of a harder question, requiring higher level thinking skills: "Discuss differences in the personality characteristics of the two main characters."). In an effort to alleviate any stress incured by target students due to increased task difficulty, students were informed of these procedures during

post-observation interviews conducted by the trained graduate assistants.

All observations and post-observation interviews were conducted by four, trained graduate assistants. This training involved participation in two workshops with the teachers involved in the study for the purpose of explaining the philosophical and research bases for the study. In addition, these graduate assistants had extensive training in the actual observation techniques to ensure accurate recording of this information.

PHYSICAL EDUCATION

A total of eight lessons (four easier, four harder) were provided to these target students as they received physical education instruction with their regular classes. Although the units of instruction centered around sports skills, the specific focus of each lesson was determined by the curriculum of individual schools. Activities included skills in volleyball, juggling, basketball, and table tennis, as well as games of four-square, and various fitness activities. Lesson plans were developed to incorporate a maximum amount of individual practice for all students involved in the investigation, regardless of school or physical education unit of study. This individual practice was desired so that each student was in control of the

amount of personal effort put forth toward a particular task. By working alone, a student's on-task percentages and causal attributions would not be influenced by the efforts of others.

Measuring Task Persistence

The purpose of this measure was to determine the extent to which students continue to work at a given task. To accomplish this in physical education, learned-helpless and mastery-oriented students were observed as they worked on various game skills during class. Trained graduate assistants conducted these observations in the gymnasium. Each was encouraged to situate him/herself in an unobtrusive location during observation periods (e.g., side of the gym, on the stage). Each observer, who was unaware of the target students' achievement orientations, employed an interval coding procedure. Target students were observed for ten-second intervals. The assistant then used the next ten seconds to note specific behaviors and coded such as either on- or off-task. An audio-taped prompt was used to ensure accuracy in these timing procedures. It consisted of a verbal instruction to observe a student ("Observe student one"), followed by 10 seconds of silence while this observation took place. Next, a verbal instruction to record what was actually taking place during the majority of the observation interval ("Record student one"), was

followed by 10 seconds of silence for such recording. A form for recording these observations is provided in Appendix E.

This method was first piloted in two different schools by two graduate assistants. Math, physical education, and reading classes were observed as part of this effort. Whether a student was observed to be on- or off-task seems to be a valid measure of his/her effort. Thus, this distinction was a way to determine individual effort (i.e., task persistence) on the part of target students. The decision as to whether a student was on- or off-task was left to the each observer after undergoing an intense period of training.

On-task behaviors included, but were not limited to, asking the teacher for information, actively working on a task/assignment, and appearing to be mentally engaged with a task. Off-task behaviors included sharpening pencils, talking to other students in excess of an amount deemed to be task-relevant, long periods of insufficient effort, and other similar behaviors.

The percentage of agreement of the judgements of these two observers concerning on-task behaviors for all pilot observations was 90.12% (Pilot school #1 - Physical Education - 86.84%; Pilot school #2 - Math - 91.67%; Reading - 94.74%.

Never were more than three students observed in a single class period. The audio prompt would instruct observers to observe and code the first student, followed by the second and third students. This sequence would be repeated until the end of the observation period. This procedure allowed the observers to capture larger portions of a particular class for each student. Target students were not aware of their status. Similarly, students were not informed beforehand of observation dates.

During the first two observations, no data were taken. This buffer was provided to allow students and teachers to become more comfortable with the presence of an observer in the classroom. Since these observations were conducted over a four-month period, it was felt that a relatively accurate depiction of each target student's class behavior was captured.

After all observations had been taken, an on-task/off-task percentage was determined for these learning experiences by dividing a student's on-task observations by his/her total number of observations. The quality of an individual's performance was not a factor so that effort was not confused with ability. The intent, rather, was to record on-task/off-task behaviors in order to determine individual effort.

Determining Causal Attributions

Previous studies which sought an individual's attributions for outcomes have routinely accomplished this via questionnaires, stimulated-recall interviews, or both (e.g., Hokoda et al., 1989; Lipman, 1990; Ward et al., 1987). Some of these attributional measures are designed to be used with hypothetical situations and are administered immediately after the occurrence of such an "event". Hill & Larson (1992), in a paper intended to refine the construct of attributional style, offer evidence that attributions change over time. Since the use of hypothetical events precludes this influence, they suggest that attributions should be determined for real-life events after some time has passed. They report "the past six months" as being the most commonly used period of time between the event and the solicitation of causal attributions.

Considering the above issue, causal attributions for successes and failures in the physical education setting were determined in the following manner.

A trained graduate assistant videotaped target students as they worked individually on specific skills. As with the observations for task persistence, the first two lessons that were videotaped did not become a part of the data in an attempt to allow students to become comfortable with the presence of the video equipment.

These tapes were subsequently edited so that each contained four examples of success and failure experiences (lasting approximately ten seconds each) in the physical education unit of instruction. In order to verify the fidelity of the success-failure segments, the investigator and another trained observer classified segments from two sample tapes independently. Reliability between these independent classifications was 93.24%. A 100% agreement was reached during pilot work with this method (Martinek & Griffith, 1992).

Segments were eventually shown to target students during interviews conducted by the graduate assistant. These interviews took place two to six months after the actual events. The purpose of these interviews was to determine a student's causal attributions concerning his/her success and failure experiences. Once again, the graduate assistant had no prior knowledge of the E/A Scale scores or teacher ratings of these students. After each segment was viewed by the student and graduate assistant together, he/she was asked these four questions:

(1) What were you doing in that scene?
(2) How do you think you did on the task?
(3) What makes you feel this way? (Students were then asked to choose between an effort, ability, or an other attribution)
(4) How do you think you will do in Physical Education next year?

Together, these questions allowed the investigator to determine a student's causal attributions for success and failure experiences he/she encountered and subsequently viewed on the video. This interview protocol was piloted and deemed effective for ascertaining student attributions in pilot work (Martinek & Griffith, 1992).

Question 1 was for orientation purposes, focusing the student on the video information. Question 2 allowed the interviewer to determine if the task was perceived by the student as intended. Students agreed with the judgement of the investigator on task outcome in all subjects 91.03% of the time. When students perceived what was meant to be a success as a failure (or vice versa), the interviewer attempted to discover the student's reason(s) for this perception by asking further questions. In cases where students maintained their ascertion concerning a particular task/assignment, regardless of the researcher's intention, it was the student's perception that was accepted.

The student's attribution for that success or failure was elicited by Question 3. He/she was asked to choose among the three responses similar to those on the E/A Scale, i.e., an <u>effort</u> attribution ("Did you succeed/fail because you worked/didn't work hard?"), an <u>ability</u> attribution ("Do you usually do well/poorly with these tasks?"), or an <u>other</u> attribution (the student was asked to elaborate on any

external factors that he/she credited as the reason for an outcome).

Finally, Question 4 was an attempt to understand a student's level of self-confidence in the class for the near future. Each interview was audiotaped and later transcribed. The researcher, upon reviewing the transcripts, independently coded student attributions. Reliability concerning the accuracy of coding these attributions for all subjects was 89.14%. The interview protocol sheet is provided in Appendix F.

MATH AND READING

Similar to physical education, eight lessons (four easier, four harder) were provided to the target students as they received instruction in math and reading from their classroom teachers. A portion of each lesson was devoted to the students working independently on some type of worksheet of math problems or reading passages. As with the physical education tasks, students worked alone allowing the investigator to more accurately assess personal effort. All of this work was within the child's ability, but, as in the physical education setting, tasks developed and rated as easier or harder by the classroom teachers were assigned to these students in order to determine their reactions. This was accomplished by including problems/passages on the

worksheets that were within, but at the extremes of the student's ability. This methodology was developed and piloted prior to being utilized in this investigation.

The pilot work included a series of workshops which involved the teachers who participated in this investigation. In addition to defining and providing numerous examples of the learned helpless and mastery oriented constructs, these workshops dealt with data-collection procedures. Appendix G contains a handout used as a guide for participant teachers to define these constructs.

After much discussion, it was decided to vary task difficulty in this manner. It was the opinion of the workshop participants that they could more accurately accomplish this variance since they already knew the ability and achievement levels of their students.

Measuring Task Persistence

Target students were observed as they worked on the math problems/reading passages in their classrooms. A student's on-task percentage was determined via the same protocol utilized in the physical education setting. The number of correctly solved problems was not noted because this reflects student ability more so than his/her effort. The observation recording sheet (see Appendix E) was also used for math and reading observations.

Determining Causal Attributions

The same interview protocol employed in the physical education portion of this study was used with a student's math/reading performance. The focus of these interviews, rather than videotaped success/failure experiences, was graded paperwork of the students (e.g., tests, homework, worksheet, projects). As in the physical education setting, two to six months had elapsed between the completion of this work and the interview. Pilot work with the use of videotape to record on-/off-task behaviors in the classroom did not prove effective. Simply, it was too difficult to reliably determine when students were on- or off-task in these classroom settings.

Many examples of this written work were gathered by the classroom teachers throughout the course of the investigation. This procedure was established during the pre-investigation workshops. Prior to the interviews, teachers chose three success examples and three failure examples for each student. They were encouraged to choose only the most obvious examples that would be similarly interpreted by the students. Generally, "A" work was chosen for successes, while "C" or below work (depending on a child's achievement capabilities) was chosen as failure experiences. Student responses, which were audiotaped and transcribed, were again divided into ability, effort, and other categories.

DATA ANALYSIS

Chi-square analyses were conducted to assess significant differences between learned-helpless and mastery-oriented students in their task persistence (a comparison of on-task and off-task behaviors) and causal attributions (a comparison of effort, ability, or other choices) for both levels of task difficulty. Specifically, a 2 X 2 (Orientation X On/Off Task Percentage) chi-square was generated for task persistence data for each subject and for all subjects considered together. This statistic measured differences in the percentage of on-task behaviors between the two orientations in all learning contexts. Additionally, analyses include overall on-task behaviors and those same behaviors with respect to task difficulty.

A 2 X 3 (Outcome X Attribution) chi-square was generated for each achievement orientation concerning reasons offered for successess or failures. Chi-square values were determined for each subject and for all subjects considered together.

Further, gamma coefficients were generated from the chi-square analyses of the task persistence data. Gamma, which is a nonparametric correlation coefficient, shows the magnitude of the relationship between variables (Davis, 1971). Specifically, the gamma coefficient allows one to

determine if statistically significant differences are, in fact, important differences that will impact on a child's performance in the classroom. Any value of gamma that is .2 or higher is considered significant. According to Davis, gamma can be interpreted as the percent improvement over chance in prediction that experimental results reflect real differences. A gamma coefficient of .2, then, reflects a 20% improvement over chance that the results in this task persistence data are real differences.

Gamma coefficients have not been generated for any of the attributional data. This statistic does not accurately reflect the meaning of chi-square values when more than 2 variables are involved, unless these variables are at least ordinal in scale. Since all categories in this study are nominal, gamma coefficients serve no useful interpretive purposes.

CHAPTER III

RESULTS AND DISCUSSION

The purpose of this investigation was to document the existence and to study the globalness of the learned helpless phenomenon among middle school students. The fact that target students were identified, as reported in Chapter II, served to document the existence of the phenomenon among this population of 6th graders. Recall that from a total of 197 students, 13 were identified as learned helpless (6.6%) and 29 as mastery oriented (14.72%) based on their E/A Scale scores and Teacher Ratings.

Task persistence and Attributional differences between learned-helpless and mastery-oriented students were determined by comparing these behaviors of the 23 target students (11 learned-helpless, 12 mastery-oriented) chosen to participate in the study based on extreme scores. A greater understanding of the Task Persistence and Attibutional behaviors of these students, thereby creating a more complete description of the manifestation of these achievement orientations, as well as whether these behaviors are maintained across the three classroom contexts is gained through the following research questions:

(1) What are the task persistence differences between learned-helpless and mastery-oriented students?

(2) How does the difficulty of the task impact on the task persistence behaviors of learned-helpless and mastery-oriented students?

(3) What are the attributional differences between learned-helpless and mastery-oriented students?

(4) Do these differences manifest themselves in the three classroom contexts?

Task persistence data are reported first. Specifically, the on-task percentages of learned-helpless and mastery-oriented students in all subjects will be presented, followed by these same comparisons for each subject. Findings with respect to task difficulty will be reported after the above comparisons.

The data concerning causal attributions will then be reported. Comparisons between the attributions of learned-helpless and mastery-oriented students will be presented for all subjects, followed by these same comparisons in each subject, thereby addressing the globalness issue.

A general discussion of these results will follow the reporting of data.

RESULTS

Task Persistence

Learned-helpless and mastery-oriented students exhibited statistically significant differences in their percentage of on-task behaviors when all subjects are considered together (see Table 4, $X2 = 187.86$, $p < .001$). Significant differences were also found between these groups of students in each subject ($X2$: math = 144.62, Table 5; physical education = 19.47, Table 6; reading = 51.00, Table 7). All of these chi-square values are significant at the .001 level, and indicate that the learned-helpless students in this study were on task less than their mastery-oriented classmates.

	On-task Percentage	Tallies	X2	g
LEARNED HELPLESS	77.32	3231/4179	187.86	.37
MASTERY ORIENTED	88.12	4311/4892		

Table 4. On-task percentages, $X2$ value ($p < .001$), and gamma coefficient of learned-helpless and mastery-oriented students in all subjects.

	On-task Percentage	Tallies	X2	g
LEARNED HELPLESS	75.39	1158/1536	144.62	.53
MASTERY ORIENTED	90.91	1600/1760		

Table 5. On-task percentages, X2 value ($p < .001$), and gamma coefficient of learned-helpless and mastery-oriented students in math.

	On-task Percentage	Tallies	X2	g
LEARNED HELPLESS	78.49	967/1232	19.47	.22
MASTERY ORIENTED	84.98	1290/1518		

Table 6. On-task percentages, X2 value ($p < .001$), and gamma coefficient of learned-helpless and mastery-oriented students in physical education.

	On-task Percentage	Tallies	X2	g
LEARNED HELPLESS	78.38	1106/1411	51.00	.34
MASTERY ORIENTED	88.04	1421/1614		

Table 7. On-task percentages, X2 value ($p < .001$), and gamma coefficient of learned-helpless and mastery-oriented students in reading.

These values are, in part, a result of the extremely large number of observations (n = 9071), since chi-square is sensitive to sample size. Accordingly, a gamma coefficient was generated for each significant chi-square value as an attempt to negate the inflationary effects of this large number of observations. These gamma coefficients are also listed in Tables 4-7 for students of both orientations. Overall, significant gamma coefficients appear when comparing learned-helpless and mastery-oriented students in the percentage of on-task behaviors (g: all subjects = .37; math = .53; physical education = .22; reading = .34). Recall from Chapter 2 that gamma coefficients of .2 or higher are to be considered significant.

Tables 8-11 report chi-square values, gamma coefficients, and on-task percentages of learned-helpless and mastery-oriented students in the various subjects with respect to task difficulty. Statistically significant differences appear between these two orientations in most subjects when the difficulty of the task is a factor. Specifically, learned-helpless students were on task a greater amount of time as task difficulty was increased when all subjects are considered together (see Table 8; $X2 = 25.79$, $p < .001$). This finding is also applicable to each subject (X2: math = 4.53, $p < .05$, Table 9; physical education = 23.34, $p < .001$, Table 10; reading = 4.32, $p < .05$, Table 11).

	ON-TASK PERCENTAGE			
	Easy	Hard	X2	g
LEARNED HELPLESS	74.00	80.58	25.79**	.19
MASTERY ORIENTED	89.06	87.14	4.30*	-.09

* p < .05
** p < .001

Table 8. On-task percentages, X2 values, and gamma coefficients X orientation X task difficulty in all subjects.

	ON-TASK PERCENTAGE			
	Easy	Hard	X2	g
LEARNED HELPLESS	73.03	77.71	4.53	.13
MASTERY ORIENTED	92.30	89.59	3.91	-.16

Table 9. On-task percentages, X2 values (p < .05), and gamma coefficients X orientation X task difficulty in math.

	ON-TASK PERCENTAGE			
	Easy	Hard	X2	g
LEARNED HELPLESS	72.43	83.76	23.34**	.33
MASTERY ORIENTED	85.39	84.49	.235	-

** p < .001

Table 10. On-task percentages, X2 values, and gamma coefficients X orientation X task difficulty in physical education.

	ON-TASK PERCENTAGE			
	Easy	Hard	X2	g
LEARNED HELPLESS	76.22	80.77	4.32 *	.13
MASTERY ORIENTED	89.37	86.64	2.86	-

* P < .05

Table 11. On-task percentages, X2 values, and gamma coefficients X orientation X task difficulty in reading.

In contrast, mastery-oriented students were found to decrease their on-task behaviors as the difficulty of the tasks increased when all subjects are considered together ($X^2 = 4.3$, $p < .05$, Table 8) and in math ($X^2 = 3.91$, $p < .05$, Table 9). Although these students also exhibited fewer on-task behaviors in physical education and reading with

more difficult tasks (see Tables 10 & 11), these decreases were not statistically significant.

The only significant gamma coefficient for task difficulty results when one compares the on-task behaviors of learned-helpless students in physical education (Table 10). This coefficient (g = .33) indicates a significant increase in on-task percentage of these students as their physical education tasks became harder.

Tables 4-11 also list the actual percentages of on-task behaviors, allowing the reader to develop a more accurate comparison of this measure between the two achievement orientations in the three classroom settings. For example, Table 4 reports an on-task percentage for learned-helpless students of 77.32 for all subjects together. Mastery-oriented students were on-task 88.12% of the time, resulting in a chi-square of 187.86 ($p < .001$) and a gamma of .37.

This type of comparison can also be made with respect to task difficulty. Table 8 reports learned-helpless students to be on task in all subjects 74.00% of the time. Their increase to 80.58% in these behaviors with more difficult tasks is statistically significant ($X2 = 25.79$, $p < .001$), although the resulting gamma coefficient ($g = .19$) is not deemed to be significant. Similar comparisons can be made by comparing significant chi-square values or gamma

coefficients to the reported on-task percentages found in these tables.

While it is not within the scope of this investigation to compare the differences among the three school settings, Tables 16a, 16b, and 16c are included in Appendix H listing on-task percentages of students of both orientation X subject X school X task difficulty. These data are provided for informational purposes only.

Causal Attributions

Tables 12-15 compare the attributional choices of learned-helpless and mastery-oriented students in success and failure situations and the resulting chi-square values. Table 12 reports this information for all subjects, while Tables 13-15 report this information for each subject. Gamma coefficients are not a part of these data sets as this statistic is inappropriate for nominal data.

When all subjects are considered together (Table 12), mastery-oriented students chose effort attributions in both outcomes a greater percentage of time than learned-helpless students. In success situations, mastery-oriented students chose effort attributions 58.87% of the time, while citing ability attributions 41.13% of the time. Attributional choice percentages for learned-helpless students were: effort = 50.48, abiltity = 46.67, and other = 2.86. The

resulting chi-square value of 5.22 is significant at the .05 level.

SUCCESS	% LH	% MO	X2
Effort	50.48	58.87	
Ability	46.67	41.13	5.22*
Other	2.86	-	
FAILURE			
Effort	50.00	74.55	
Ability	31.25	16.36	12.17**
Other	18.75	9.09	

* p < .05
** p < .001

Table 12. Attributional percentages and chi-square values X outcome X orientation in all subjects.

Attributional difference between the two orientations become more differentiated during failure situations. Mastery-oriented students choices were: effort = 74.55, ability = 16.36, and other 9.09. Learned-helpless choices were: effort = 50.00, ability = 31.25, and other = 18.75. The resulting chi-square of 12.17 is significant at the .001 level.

The remaining significant differences in attributions offered by these two groups appeared when failure was experienced in math (Table 13). Learned-helpless students chose evenly amoung the three attributional choices (33.33%

for each category). Mastery-oriented students, in comparison, chose effort attributions 74.19% of the time, ability attributions 16.13% of the time, and other attributions 9.68% of the time. The resulting chi-square value of 9.48 is significant at the .005 level.

SUCCESS	% LH	% MO	X2
Effort	50.00	56.10	
Ability	47.22	43.90	1.32
Other	2.78	-	
FAILURE			
Effort	33.33	74.19	
Ability	33.33	16.13	9.48***
Other	33.33	9.68	

*** p < .005

Table 13. Attributional percentages and chi-square values X outcome X orientation in math.

This same information for physical education and reading is reported in Tables 14 and 15, respectively. No significant differences for attributions between learned-helpless and mastery-oriented students were found in these subjects.

SUCCESS	% LH	% MO	X2
Effort	48.57	64.41	
Ability	48.57	35.59	3.55
Other	2.86	-	
FAILURE			
Effort	55.56	72.09	
Ability	33.33	20.93	2.35
Other	11.11	6.98	

Table 14. Attributional percentages and chi-square values X outcome X orientation in physical education.

SUCCESS	% LH	% MO	X2
Effort	52.94	53.66	
Ability	44.12	46.34	1.23
Other	2.94	-	
FAILURE			
Effort	60.00	77.78	
Ability	25.00	11.11	2.27
Other	15.00	11.11	

Table 15. Attributional percentages and chi-square values X outcome X orientation in reading.

Differences in attributional choices between these groups of students in the remaining contexts, i.e., math successes, physical education and reading successes and failures, were not found to be significant.

Tables 17a, 17b, and 17c, included in Appendix I, list the interview data concerning student attributions. It breaks down this information by school, as well as by subject and outcome. Again, it is not within the scope of this investigation to look at differences amoung school settings so these data are provided for informational purposes only.

DISCUSSION

Task Persistence

Mastery-oriented students in this study were on task a significantly greater percentage of time than were their learned-helpless classmates. This was anticipated considering the significant amount of information available from previous research in this area (e.g., Cecil & Medway, 1986; Miller & Klein, 1989; Prapavessis & Carron, 1988).

With this finding alone, one may infer that a greater percentage of on-task behaviors may lead to eventual success with achievement situations. As a result, a learned-helpless orientation would interfere with learning and performance, while a mastery orientation facilitates the same.

Tasks, rated as easier or harder, were included in this study due to the expectation that as they become harder, students would begin to experience failure. Consequently,

learned-helpless individuals may withdraw effort from the task at hand, reflected in a decrease of on-task behaviors. Mastery-oriented students, in contrast, are said to increase persistence with tasks as they experience difficulty (e.g., Fincham et al., 1989; Licht & Dweck, 1984; Martinek & Griffith, in press; Stipek & Kowalski, 1989).

The expectation that increasing task difficulty inhibits the on-task behaviors of learned-helpless students while having the opposite effect on their mastery-oriented classmates was not supported by the findings of this investigation. In fact, except for two instances, all significant chi-square values for task difficulty appeared with learned-helpless students. That is, these students actually increased their persistence with learning tasks as these tasks became more difficult. Learned-helpless students in math, physical education, and reading displayed significantly higher percentages of on-task behaviors as these tasks became harder. A significantly higher percentage was also displayed by these students when all subjects were considered together.

Once again, the reader is reminded that the judgement of task difficulty was made by the classroom teachers and may not have been totally accurate. It may be argued, however, that if their assessments were correct, the high expectations of these teachers, reflected in a higher degree of task difficulty, may be responsible for increasing the

persistence of learned-helpless students. For teachers who regularly work with these students, this is exciting news as they seek to tailor learning experiences for this exceptionality.

Although this finding may, on the surface, appear to run contrary to conventional wisdom, there is some support to the notion that high teacher expectations, reflected in more difficult learning tasks, cause students to feel they possess a higher level of ability. In contrast, low teacher expectations, frequently reflected in easier tasks and increased amounts of teacher praise, cause students to feel a lack of ability (Good & Brophy, 1990; Horn, 1985; Meyer, 1980). This finding runs contrary to what was anticipated, but lends support to the high expectations tenet of effective schools research (e.g., Gipp & Fox, 1991; Mason et al., 1992; Vivian, 1989).

Somewhat paradoxically, the mastery-oriented students in this sample actually decreased their task persistence significantly when faced with more difficult tasks. This was found to be especially true in math class and when considering all classes together (see Tables 8 and 9, respectively). This, too, is counter to previous research where mastery-oriented students were found to intensify effort in similar situations (e.g., Dweck, 1975; Fincham, Hokoda, & Sanders, 1989). Could it be that learning tasks were already sufficiently high to elicit high levels of

effort on the part of these students? If this was the case, additional increases in task difficulty may have only served to frustrate these mastery-oriented students. The decrease in task persistence, then, may have been a sign of this frustration. It is also possible that these students were simply not sufficiently challenged even though their teachers thought this to be the case. Research has shown that the teacher's perceptions of classroom dynamics, when compared to those of their charges, are not always the same (Martinek, 1988). As a result, constant self-reflection and the solicitation of student input must be an integral part of an effective teacher's repertory.

One is reminded that while task persistence levels for these mastery-oriented students decreased as task difficulty increased, the overall on-task percentage of this group of students was still significantly higher than that of the learned-helpless students in this study. Previous research supports this finding (e.g., Dweck, 1975; Stipek & Kowalski, 1989). This fundamental difference between these two groups of students is most certainly a critical factor in the overall achievement levels of these individuals.

While mastery-oriented students were on task a significantly greater amount of time in all classes when compared to their learned-helpless classmates, the biggest differences in these behaviors was found in math class (see Table 5). Mastery-oriented students were on task over 15%

more of the time than learned-helpless students. Furthermore, this difference yielded the largest chi-square and gamma coefficient. While such differences in individual classes were not originally sought or anticipated, the magnitude of this result cannot go without comment.

This finding may be explained by the different natures of the three classroom contexts. Physical education and reading classes frequently require divergent thinking, i.e., no singular physical response or answer is solicited. In fact, orignality may be routinely sought in these classes. In contrast, math classes traditionally seek a singular solution. When <u>that</u> answer is not immediately forthcoming, learned-helpless students may tend to cease involvement with the task at hand. Mastery-oriented students, in these situations, may persist in order to find THE solution.

To summarize, the mastery-oriented students in this study persisted in math, physical education, and reading a significantly greater amount of time than their learned-helpless classmates. One can infer that a greater time on task will eventually yield greater student learning and performance (e.g., Nelson, 1990; Michigan State Board of Education, 1990; Wilson, 1987), thus the importance of this finding cannot be overemphasized. Although increased task difficulty did not cause a greater percentage of on-task behaviors with mastery-oriented students, this increase was evidenced with learned-helpless students. It is indeed

encouraging to see these students increase their percentage of on-task behaviors when faced with more difficult tasks rather than decreasing these behaviors as has been the case in most previous research in this area (e.g., Craske, 1988; Martinek & Griffith, in press).

When teachers involved in this study were initially told of the intent to increase task difficulty in order to measure resulting task persistence, some uncomfortable feelings with this procedure were expressed. The general fear seemed to center around the contention that an increase in task difficulty would invite unacceptable levels of frustration within students regardless of their achievement orientation. Perhaps this finding will help to alleviate this concern and encourage teachers to challenge students regardless of their level of ability.

Causal Attributions

It was hypothesized that attributional differences between learned-helpless and mastery-oriented students would appear as failure was experienced (e.g., Ayres et al., 1990; Craske, 1988; Hokoda et al., 1989). Specifically, learned-helpless students would attribute their failure to a lack of ability, while mastery-oriented students would cite a lack of effort for failure. This was the case with the groups involved in this study. Statistically significant attributional differences were found between the two groups,

especially in math class (see Table 13). Further, these two orientations differed significantly in their attributions for both outcomes when all three classroom contexts were considered together (see Table 12). The failure experience generates a much large chi-square value, however, lending support to Dweck's (1975) notion that attributional differences are most noticeable in failure situations. Other researchers share this contention (e.g., Johnson, 1981; Reynolds & Miller, 1989). This is an important finding as it has a direct influence on what actions a student will take to personally alter a failure experience once it has occurred. Recall that, when success or failure is seen as being the result of personal effort, students remains, ultimately, in control of their achievement outcomes. They are able to take credit for their successes, while failure, seen as the result of insufficient effort, can be alleviated through an intensified concentration with the task/assignment. These attributional differences will be discussed in light of this study's finding that even though learned-helpless students increased task persistence in the face of difficulty, their overall persistence was significantly lower than that of mastery-oriented students.

When success or failure is perceived as being the result of ability, frequently viewed as an innate gift that one either has or lacks, or as the result of some external force (e.g., the teacher's good mood, the ease of the task,

luck), little can be done, personally, to affect the outcome. Effort, then, seems to be the key as far as personal control over achievement situations is concerned. This attribution is most frequently selected by mastery-oriented students and most frequently overlooked by learned-helpless students. This was the case in this study as well as in previous research (e.g., Ames, 1984; Diener & Dweck, 1978; Reynolds & Miller, 1989)). This means, of course, that mastery-oriented students cite insufficient effort as their reason for failure a significantly greater amount of time than their learned-helpless classmates. This latter group cites uncontrollable factors, i.e., ability or other, a significantly greater amount of time, thereby negating the effects of any personal control they may be able to exert on these situations.

Mastery-oriented students, then, are frequently able to personally influence outcomes through intensified effort. As a result, their failures do not seem to have the debilitating effects that they have with students who see no link between personal response capabilities and achievement outcomes. While the learned-helpless students in this study attributed their failure experiences to effort half of the time, the other half of these experiences were perceived to be out of their control. In light of this finding, one can begin to understand how these students may experience frustration with achievement situations. If they are not

taught how to more satisfactorily deal with such situations, withdrawal becomes the logical course of action.

This is particularly tragic when one is reminded that learned-helpless and mastery-oriented students do not differ significantly on measures of intelligence (Dweck & Licht, 1980). Although no official measures of intelligence, academic achievement, or physical skill were assessed (this information was not made available), all teachers involved expressed their beliefs, at the study's conclusion, that target students were all within the average range of intelligence and physicial ability, and, thus, were similar in their academic and physical potentials. What seems to have separated these students, then, was their achievement orientation and resulting achievement-related performance.

There were no statistically significant differences found between learned-helpless and mastery-oriented students in their attributions for success or failure in physical education or reading classes. Tables 13 & 14 do report percentage differences between these two orientations that do fit the anticipated pattern, however. Specifically, learned-helpless students in physical education chose effort attributions slightly more than half the time (55.56%), while mastery-oriented students chose this type of attribution nearly three-fourths of the time (72.09%). In reading, learned-helpless students cited effort attributions for failure 60% of the time. Mastery-oriented students

chose effort attributions in similar situations 77.78% of the time. It is the contention of the author that this data is practically meaningful, while not statistically significant.

Students' Attributional Statements

In the interviews conducted to elicit reasons from target students concerning their success/failure experiences, students were asked to choose between effort, ability, and other attributions. Actual statements from these students fell into rather typical patterns. Examples of such statements are included as additional insights into the thought processes of these students.

Effort attributions were frequently expressed in ways that centered around the level of student work. Statements such as the following were offered for success experiences:

I worked hard at that multiplication.
I tried very hard on that assignment.
I studied hard for the test.
I really practiced bumping the volleyball.
I try hard to do good.
I did my best on that reading work.
I spent a lot of time working on juggling.
I looked up all of the vocabulary words.
I took my time with that worksheet.
I really concentrated on the work.

Failure experiences brought the following effort attributions:

I didn't study for the test.
I guess I just didn't try hard enough.
I didn't try very hard on that work.
I really didn't do my best on that assignment.
I didn't read the story.
I don't think I worked hard enough in class.
I didn't practice enough before the skill test.
I just forgot to work on it.
I wasn't paying attention to (the teacher).
I was just playing around during that scene (referring to a videotaped failure experience).
I didn't put much effort into the test.
I just hurried through that 'cause I wanted to get finished.
I felt lazy that day.
I didn't concentrate on the ball.

When students credited their own ability for success experiences, statement such as the following were made to express these attributions:

I've been doing good at math since the fourth grade.
Juggling is always easy for me.
I'm just good at spelling.
I usually do good on writing stuff.
I've always been good at sports.
I'm normally good at finding words in sentences.
I usually do well playing ping-pong.

Failures attributed to a student's lack of ability were expressed in the following manner:

> I don't usually do well in sports.
> I'm usually not good in math.
> Math has always been kind of hard for me.
> I never understand what (the teacher) is saying.
> I don't know how to do fractions; it is usually pretty hard for me.
> I'm just not good with my hands.

Attributions that did not fit into the effort or ability categories generally centered on reasons beyond the student's control. These attributions can be classified into a number of categories. Some statements dealt with the <u>difficulty of the task</u>:

Success	Failure
These problems were easy.	I had never seen questions like that before.
This stuff was pretty easy; I got easy words.	That test was too hard!

Some outcomes were attributed to the <u>equipment</u>:

Success	Failure
The basket was lower and that made it easy to hit.	I cant' dribble with nerf balls.
Scarves are easy to juggle.	The goal was too high.

Outcomes were also attributed to the teacher:

Success	Failure
(The teacher) helped me; that's why I could do it.	I tried, but (the teacher) said time was up and I had to stop.
(The teacher) was in a good mood when she graded it.	(The teacher) didn't explain it good; he talks too fast.

Finally, some outcomes were attributed to luck:

Success	Failure
I just guessed and got 'em right.	I guess I had bad luck on that test.

ADDITIONAL INTERVIEW DATA

In addition to determining attributions, the interview data provided insights beyond basic reasons for the achievement outcomes of these students. Specifically, it is interesting to note how experiences deemed as a success or failure by the investigator were misperceived by students in some instances. How students feel concerning their potential in math, physical education, and reading for next year also provides some interesting information.

Missclassifications - Of 468 success and failure examples of student work, 42 were misclassified by the students during the post-investigation interviews. In other

words, what was meant as a failure by the investigator was interpreted as a success by the student, or vice versa. Are their any differences between these two orientations in the rate or the nature of these misperceptions?

Of the 42 misclassifications, 38 were failure situations that were viewed by the students as successes. This perception was maintained even though the interviewer probed deeper in order to the determine the reason(s) for the misperception. As was stated in the methodology, the student's interpretaion of the situation, regardless of the researcher's intention, was accepted. These 38 situations were divided almost equally among the two orientations (20 learned helpless, 18 mastery oriented). The remaining four misclassifications were success situations seen as failures by the students and shared two characteristics in common: all were held by learned-helpless students in the physical education setting.

Overwhelmingly, when students in this investigation misinterpreted a success/failure situation, they viewed it as a success. This may indicate the inherent optimism within students, regardless of achievement orientation. If this is the case, it is certainly good news for teachers and researchers concerned with altering a maladaptive achievement orientation such as learned helplessness. This finding runs somewhat contrary to Reynolds & Miller's (1989) contention that a learned-helpless orientation and its

debilitating effects on achievement-related behaviors become more stable with age. Perhaps the learned-helpless orientation is not as stable with older students as these researchers have suggested.

The relatively small number of success situations seen as failures is not a cause for alarm in and of itself. The fact that these pessimistic misperceptions occurred exclusively with learned-helpless students in the physical education setting may indicate the exacerbating effects of this environment on students of this nature, however. Certainly, further attention needs to be directed in this area.

Prognoses for Next Year

Each student was asked to respond to the question, "How do you think you'll do in math/physical education/reading next year?". This was attempted in order to get a general indication of the student's level of self-confidence in these subjects. Learned-helpless students responded to this question in a positive manner approximately two-thirds of the time (65/96 = 67.71%). They responded that they would do poorly in a particular subject 11.46% (11/96) of the time, while expressing no opinion 20.83% (20/96) of the time. In contrast, mastery-oriented students thought they would do well in a subject almost exclusively (95/102 = 93.14%). They expressed no opinion 6.86% (7/102) and never

expressed a negative feeling toward their performance in a subject for the ensuing year. These data seem to indicate a higher degree of self-confidence on the part of mastery-oriented students. This may be a result of the positive affect with the task which has been identified as a characteristic of these students in previous research (e.g., Diener & Dweck, 1978; Dweck & Licht, 1980). Once again, it seems logical to assume that such positive affect and feelings of self-confidence for a subject in school equips students with the skills necessary to succeed with tasks, regardless of any difficulties that may be initially encountered. Unfortunately, learned-helpless students who, approximately one-third of the time, either have no idea how they will progress or feel they will do poorly, may be developing a mindset where failure is an anticipated occurrence. With such expectations, success becomes a more illusive end.

GENERAL CONCLUSIONS

The current study identified the expected task persistence differences between learned-helpless and mastery-oriented students. In general, learned-helpless students exhibited a lower percentage of on-task behaviors when compared to mastery-oriented students. The task difficulty issue did not seem to impact on these two groups

of students, as was anticipated. In fact, learned-helpless students seemed to increase their persistence with learning tasks as the difficulty of these tasks increased, while mastery-oriented students displayed a tendency to decrease persistence in similar situations. This incidence, as has been discussed, is opposite of what was expected, and, although not statictically conclusive, is most interesting and worthy of a closer look in future studies.

As anticipated, learned-helpless students appear to feel powerless to influence failure situations a significantly greater amount of time when compared to the mastery-oriented group. Learned-helpless students cited ability or a number of external factors approximately 50% of the time as their reasons for failure. In contrast, mastery-oriented students chose effort attributions nearly 75% of the time in these same situations, thereby allowing future success with these tasks to remain a viable alternative.

The findings from this study also lend support to the contention that achievement orientations generalize across achievement domains for some students. Although the vast majority of research in this area has maintained this assertion, it has remained empirically untested.

Two students from the original sample were inconsistently labeled. Specifically, one was mastery oriented according to the E/A Scale score, but was judged to

be learned helpless by classroom teachers. The other student, learned helpless on the E/A Scale, was rated as mastery oriented by classroom teachers. Although this incidence was rare, the danger of this occurrence must be a matter of concern on the part of classroom teachers. Students, in general, and adolescents, in particular, who are so susceptible to socially-constructed reality, tend to behave as they are expected. If parents, teachers, and significant others first mislabel a child as Learned Helpless and then, tragically, treat this individual as such thereby allowing expectations to become reality, a person's very existence in our achievement-oriented world may be threatened. It is suggested that equipping individuals with the tools to fight the maladaptive achievement orientation of learned helplessness will allow the "never-say-die" attitude of a mastery orientation to be instilled. Once this takes place, failure, rather than being an inescapable end, can become a facilitating influence along the way to eventual success and improved performance.

Finally, the effective use of the E/A Scale along with informed Teacher Ratings for the identification of an individual's achievement orientation has been demonstrated. A worthwhile goal of classroom teachers and researchers in pedagogy would be to alleviate a learned-helpless orientation with students. Certainly, the early and swift identification of such individuals would positively

influence this process. These two measures seem to serve this purpose quite effectively.

CHAPTER IV

RECOMMENDATIONS FOR FUTURE RESEARCH

Good questions invariably generate more of the same - and usually more than have been answered. This seems to be the case with the questions posed in the current study.

Some follow-up seems necessary with the task difficulty issue. While it is most encouraging that this learned-helpless group of students increased their persistence as learning tasks became more difficult, the increase was only marginally significant when one considers the resulting gamma coefficients. Was this finding simply a chance occurrence or has this investigation uncovered a heretofore unexpected, but real behavior of learned-helpless students? Further, the reasons why this sample of mastery-oriented students failed to demonstrate an increase in persistence with learning tasks must be sought, as this increase has been a given in previous research. In this latter instance, could it be that teachers are unable to accurately rate the difficulty of a particular task/lesson? If so, is this difficulty a result of an innate inability, a lack of experience with such procedures, the heterogeneous grouping of students in some classes, the inaccurate placement of some students into homogeneously-grouped

classes, or other factors? Further research in this area may begin to resolve this issue.

Since the on-task performances of learned-helpless and mastery-oriented students differed most in math class, it would be worthwhile to study this occurrence further. Would this finding be supported in a similar study? Do task persistence variations manifest themselves in some classes moreso than in others? If this is the case, teachers would need to be even more aware of learned-helpless students present in these classes in order to become a proactive facilitator of the achievement of this group.

The identification of the marginally learned helpless should be studied further. These students, remember, were classified as learned helpless on their E/A Scale score, but as mastery oriented by at least one of their teachers. It must be perplexing to teachers that certain individuals can behave in mastery-oriented ways in some classes, while displaying learned-helpless tendencies in others. Intuitively, it seems this particular exceptionality would be somewhat easier to alleviate since these students, at least part of the time, already utilize effort attributions and exhibit the task persistence that will enable them to see achievement situations through to the end.

Approximately 10% of those students originally included in this study were identified as either learned helpless or mastery oriented. In all probability, there are more of the

marginally learned helpless that researchers seem to largely ignore. Although it was not the intent of the current investigation to study these individuals, it is an important area for future research. After all, the debilitating effects of a learned-helpless orientation, whether manifested globally or in just one subject, are most detrimental to performance.

One area of this investigation that needs to be corrected concerns the interview designed to determine a target student's attributions for success or failure. The wording of certain examples provided by the interviewer seemed to confuse a few of these students. The interviewer, when seeking these attributions, would ask if the task's outcome was a failure or success because of the student's hard work (an effort attribution), because this happened to be the way he/she routinely did with this type of task (an ability attribution), or because of other factors. Examples of questions used by the interviewer to probe for such attributions are included in the Interview Protocol Sheet (Appendix F). One of these questions designed to pinpoint an ability attribution asked if a particular task was "usually easy/hard for" the student. In a few instances, students would take this question to mean that the task in question was easy/hard, thereby citing an external reason for the outcome. In the future, this reference to tasks which are usually easy/hard will be deleted.

This investigation has given support to the notion that learned-helpless and mastery orientations are generalized across achievement domains in some individuals. Additionally, the anticipated existence of more students who happen to be marginally learned helpless in certain classrooms makes this group a potentially large exceptionality. Regardless of how pervasive a learned-helpless orientation may be, the next step in this research is to investigate ways of altering this maladative achievement orientation. If this is not attempted, the academic potentials of individuals so affected can never be reached. Practically all existing research points to the effectiveness of attribution retraining (AR) techniques. These center on teaching the learned-helpless student that his/her successes/failures are linked directly to personal effort. Therefore, this student will take credit for success and have the control to alter failure. This retraining is most often accomplished on a one-to-one basis between student and researcher. How can teachers, who are perhaps the first to notice the signs of a learned-helpless achievement orientation during its formative stages, put these retraining techniques into practice and still perform the countless other duties to which they are assigned? A goal for a future investigation in this area, then, would be to train teachers to identify and alleviate these learned-helpless patterns in a classroom setting.

AR techniques, while being effective in improving task persistence and altering the attributions that learned-helpless students give for achievement outcomes, have not been shown to be long-lasting. Also, these techniques have not been shown to alter an individual's global attributions. An extension of research into these techniques would attempt to address these two concerns.

It is the goal of the investigator to work with the learned-helpless students identified in this study as they progress through their seventh grade year. An AR program will be developed and employed for these individuals. It will be administered by classroom teachers and will attempt to discover if the on-task percentage of learned-helpless students can be increased, and whether or not global attributions (as measured by the E/A Scale) can be significantly altered on a long-term basis.

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APPENDIX A

CONSENT FORM

Dear Parents,

I have been a teacher with the Randolph County Schools for the last 16 years. I really enjoy teaching and am proud to have been able to be a part of education in this area for so long. This enjoyment has led me to pursue graduate work and I am keenly interested in the different ways children learn. I agree strongly with the efforts of insightful teachers who try to match various teaching styles with the needs of individual students.

In an effort to better understand the different ways children learn, I am requesting your permission to include your child in a research endeavor to be conducted by me in cooperation with the Department of Exercise and Sport Science at the University of North Carolina at Greensboro. All 6th graders will be observed this fall as they participate in their math, physical education and reading classes. Some observations, which will take place over a three-month period, will be accomplished via videotape, while others will be conducted by trained graduate assistants from the University. I am most interested in the dynamics of the classroom setting and all attempts will be made to be as unobtrusive as possible during the observations. In no way will your child's achievement be impaired. In fact, a long-term goal of this investigation is the improvement of instruction for all children.

Some of these 6th graders will also be interviewed briefly later in the year. If you have any specific questions concerning this project, please do not hesitate to call me at Liberty School (622-2253) or at my home (622-3548).

Please sign and have your child return this letter by October 15, 1992 to his/her homeroom teacher. Thanks, in advance, for your help!

Sincerely,

J.B. Griffith, III
Teacher, Liberty School

PLEASE CHECK ONE:

____ My child may participate in this project.

____ My child may <u>not</u> participate in this project.

CHILD'S NAME: _____

PARENTS' NAMES: _____

PHONE: (Optional) _____

SIGNATURE OF PARENT: _____

* PLEASE RETURN THIS LETTER BY OCTOBER 15, 1992. THANKS!

APPENDIX B

EFFORT/ABILITY SCALE

EFFORT/ABILITY SCALE

This questionnaire describes a number of common experiences most of you have in your daily lives. These statements are presented one at a time, and following each are three possible answers. Read the description of the experience carefully, and then look at the three answers. CHOOSE THE ONE THAT MOST OFTEN DESCRIBES WHAT HAPPENS TO YOU. Put a circle around the "A", "B", or "C" in front of that answer. Be sure to answer each question according to how YOU REALLY FEEL.

1. If a teacher passes you to the next grade, would it probably be
   A. because he/she liked you,
   B. because of how hard you worked, or
   C. because you're pretty smart anyway?

2. When you do well on a test in school, is it more likely to be
   A. because you studied for it,
   B. because you always do well on tests, or
   C. because the test was especially easy?

3. When you have trouble understanding something in school, is it usually
   A. because things in school just don't make sense to you,
   B. because the teacher didn't explain it clearly, or
   C. because you didn't try very hard to understand?

4. When you read a story and can't remember much of it, is it usually
   A. because the story wasn't well written,
   B. because you really didn't try to remember it, or
   C. because you have a hard time understanding what is written?

5. Suppose your parents say you are doing well in school. Is this likely to happen
   A. because you work very hard on your school work,
   B. because your school work is usually good, or
   C. 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 finally understood the subject,
   B. because you worked harder on that subject, or
   C. because someone helped you in that subject?

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,
   B. because you didn't try very hard, or
   C. because you just don't play well?

8. Suppose a person doesn't think you are very bright or clever.
   A. Can you make him/her change his/her mind if you try hard enough.
   B. They would be right; I'm really not a very bright person.
   C. There are 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 you're good at solving puzzles,
   B. because it wasn't a very hard puzzle, or
   C. 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 in a bad mood,
    B. because you had just done a dumb thing, or
    C. because you usually do dumb things?

11. Suppose you study to become a teacher, scientist, or doctor and you fail. Do you think this would happen
    A. because you needed some help, and other people didn't give it to you,
    B. because you're not smart enough for these jobs, or
    C. because you didn't work hard enough?

12. When you learn something quickly in school, is it usually
    A. because you learn quickly in school,
    B. because the teacher did a good job of explaining it, or
    C. because you try hard to learn?

13. If a teacher says to you, "Your work is fine," is it
    A. something teachers usually say to encourage pupils,
    B. because you worked hard on an assignment, or
    C. because you're a good student?

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,
    B. because you're not good at math, or
    C. because the teacher gave problems that were too hard?

15. When you forget something you heard in class, is it
    A. because you have difficulty remembering things you hear in class,
    B. because the teacher didn't explain it very well, or
    C. 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. Is it likely to happen
    A. because he/she wasn't as particular as usual,
    B. because you gave the best answer you could think of, or
    C. because you usually answer questions correctly?

17. When you read a story and remember most of it, is it
    A. because you were interested in the story,
    B. because you usually find it easy to remember what you read, or
    C. 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 you usually act this way,
    B. because they happen to be in a bad mood, or
    C. because you had just done something silly?

19. When you don't do well on a test at school, is it
    A. because the test was too hard,
    B. because you didn't study enough for it, or
    C. because you usually do poorly on tests?

20. When you win at a game of cards or checkers, does it happen
    A. because you tried very hard,
    B. because you play really well, or
    C. because the other person doesn't play well?

21. If people think you're bright or clever, is it
    A. because you usually act that way,
    B. because they happen to like you, or
    C. because you just did a really smart thing?

22. If a teacher didn't pass you to the next grade, would it probably be
    A. because he/she "had it in for you,"
    B. because you didn't work hard enough, or
    C. because you just weren't able to learn 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,
    B. because you can't seem to understand that subject, or
    C. because somebody bothered you and kept you from concentrating?

24. If a boy or girl tells you that you are bright, is it usually
    A. because you usually have good ideas,
    B. because they like you, or
    C. because you just thought up a good idea?

25. Suppose you became a famous teacher, scientist, or doctor. Do you think this would happen
    A. because other people helped you when you needed it,
    B. because you worked very hard to achieve this goal, or
    C. because you are smart enough to get a job like this?

26. Suppose your parents say you aren't doing well in your school work. Is this likely to happen more
    A. because you haven't been working hard enough,
    B. because you just don't do well in school, or
    C. because they are in a bad mood?

27. Suppose you are showing a friend how to play a game and he/she has trouble with it. Would that happen
    A. because you have a hard time explaining things to others,
    B. because he/she didn't pay attention, or
    C. because you didn't try very hard to help them?

28. When you find it easy to work arithmetic or math problems at school, is it usually
    A. because the teacher gave you problems that were really easy,
    B. because you studied your book a lot before you tried them, or
    C. because you are good at math?

29. When you remember something you heard in class, is it usually
    A. because you tried hard to remember,
    B. because you find it easy to remember things you hear in class, or
    C. 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 very good at working puzzles,
    B. because the instructions weren't written clearly enough, or
    C. because you didn't try very hard to work it?

31. If your parents tell you that you are bright or clever, is it more likely
    A. because they are in a good mood,
    B. because you had just done a smart thing, or
    C. because you are a smart person?

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 tried hard to explain it,
    B. because you are good at explaining things to others, or
    C. 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 you don't usually answer questions correctly,
    B. because he/she was more picky than usual, or
    C. because you didn't think about the question enough before answering?

34. If a teacher says to you, "Try to do better," would it be
    A. because your work wasn't as good as usual,
    B. because your work is usually poor, or
    C. because this is something he/she might say to get students to try harder?

APPENDIX C

TEACHER RATING SCALE

TEACHER'S NAME -

SCHOOL - SUBJECT - TIME OF CLASS -

TEACHER RATING SCALE

Please rate each of your students on this LEARNED HELPLESS/MASTERY ORIENTED scale.

LEARNED HELPLESS students, in the face of failure, usually give up even though tasks are within their ability level. They frequently exhibit low self-esteem and may ask for help even on relatively easy tasks.

MASTERY ORIENTED students usually persist and even intensify their attention to the task in the face of failure. They are your "never-say-die" students that see learning tasks through to the end. They frequently display self-reliant behaviors.

Of course, few students act one way or the other exclusively. Please rate your students on this 5-point scale based on how they behave MOST OFTEN.

Remember, don't confuse the LEARNED HELPLESS student with the LOW ABILITY student or the MASTERY ORIENTED student with the GIFTED student. LEARNED HELPLESS and MASTERY ORIENTED students will be found at ALL ABILITY LEVELS.

1	2	3	4	5
ALMOST EXCLUSIVELY learned helpless	FREQUENTLY learned helpless	Displays behaviors EQUALLY	FREQUENTLY mastery oriented	ALMOST EXCLUSIVELY mastery oriented

1 - _____	1 2 3 4 5	8 - _____	1 2 3 4 5
2 - _____	1 2 3 4 5	9 - _____	1 2 3 4 5
3 - _____	1 2 3 4 5	10 - _____	1 2 3 4 5
4 - _____	1 2 3 4 5	11 - _____	1 2 3 4 5
5 - _____	1 2 3 4 5	12 - _____	1 2 3 4 5
6 - _____	1 2 3 4 5	13 - _____	1 2 3 4 5
7 - _____	1 2 3 4 5	14 - _____	1 2 3 4 5

15 - _____ 1 2 3 4 5

16 - _____ 1 2 3 4 5

17 - _____ 1 2 3 4 5

18 - _____ 1 2 3 4 5

19 - _____ 1 2 3 4 5

20 - _____ 1 2 3 4 5

21 - _____ 1 2 3 4 5

22 - _____ 1 2 3 4 5

23 - _____ 1 2 3 4 5

24 - _____ 1 2 3 4 5

25 - _____ 1 2 3 4 5

26 - _____ 1 2 3 4 5

27 - _____ 1 2 3 4 5

28 - _____ 1 2 3 4 5

29 - _____ 1 2 3 4 5

30 - _____ 1 2 3 4 5

31 - _____ 1 2 3 4 5

32 - _____ 1 2 3 4 5

33 - _____ 1 2 3 4 5

34 - _____ 1 2 3 4 5

35 - _____ 1 2 3 4 5

36 - _____ 1 2 3 4 5

37 - _____ 1 2 3 4 5

38 - _____ 1 2 3 4 5

39 - _____ 1 2 3 4 5

40 - _____ 1 2 3 4 5

APPENDIX D

E/A SCALE SCORES AND TEACHER RATINGS OF TARGET STUDENTS

EFFORT/ABILITY SCALE SCORES AND TEACHER RATINGS OF TARGET STUDENTS

LEARNED HELPLESS

STUDENT NO.	E/A SCALE SCORE LH/MO	TEACHER RATINGS Math	PE	Read
1	7/5	1	2	1
2	9/5	1	2	1
3	7/5	2	1	1
4	7/3	2	2	2
5	12/2	1	2	1
6	12/3	1	2	2
7	8/1	1	2	2
8	7/6	1	2	1
9	10/3	1	2	2
10	9/5	2	2	2
11	10/5	1	1	2
12	7/4	2	2	2

MASTERY ORIENTED

STUDENT NO.	E/A SCALE SCORE LH/MO	TEACHER RATINGS Math	PE	Read
1	0/14	4	4	4
2	0/13	5	4	5
3	2/10	4	4	5
4	1/5	4	4	5
5	2/13	4	4	4
6	2/9	4	4	4
7	0/4	4	4	5
8	1/10	4	4	5
9	1/12	5	4	5
10	3/9	5	4	5
11	3/8	5	4	4
12	1/12	5	4	4

E/A Scale Score ratio compares the number of learned helpless responses (failure due to low ability) with the number of mastery oriented responses (failure due to insufficient effort). The average ratio for all students who were administered the E/A Scale = 3.30/8.34 (n = 180).

APPENDIX E

OBSERVATION RECORDING FORM

SCHOOL _____
DATE _____
CLASS _____
TIME _____
TEACHER _____

•• PROJECT EFFORT OBSERVATION FORM ••

CODER _____

ON	OFF
STUDENT'S NAME:	TOTAL OBS ____ ON ____ OFF ____ ON TASK % ____
STUDENT'S NAME:	TOTAL OBS ____ ON ____ OFF ____ ON TASK % ____
STUDENT'S NAME:	TOTAL OBS ____ ON ____ OFF ____ ON TASK % ____

APPENDIX F

INTERVIEW PROTOCOL

PROJECT EFFORT

INTERVIEW PROTOCOL

GENERAL REMINDERS -

Spend a few minutes with each student before the actual interview begins, making him/her comfortable. You might ask him/her if he/she remembers you from the observations, being videotaped, or how his/her day has been going.

Make sure each student understands that you are interviewing a number of their classmates. You can tell him/her that the overall goal of the project is to better understand how students learn so teachers can do a better job.

Explain that he/she will view a videotape or will see written work from earlier in the year in Physical Education, Math, or Reading. Once the student has seen this information, you will ask him/her a few questions about it.

AFTER EACH VIDEO SEGMENT/EXAMPLE OF WRITTEN WORK:

1 - Tell me what you are doing in this segment/on this assignment.
(Student should describe the activity/assignment)

2 - How do you think you did on this activity/assignment?

3 - Why do you think you did well/did poorly on this? Was it because:

EFFORT - you tried (didn't try) very hard?
you did (didn't do) your best?
you worked hard (didn't work hard) on it?

ABILITY - you're usually good (not very good) at this?
you usually do well (don't do well) on this?
this is usually easy (hard) for you to do?

Change order with each segment

OTHER - Or is there another reason? (Elaborate)

*Code the above attributions below using the abbreviations: E (effort), A (ability), and O (other - please be specific if this attribution is chosen)

ATTRIBUTIONS:

Segment	SUCCESS	FAILURE
1 -		
2 -		
3 -		
4 -		

AFTER ALL VIDEO SEGMENTS/EXAMPLES OF WRITTEN WORK HAVE BEEN SHOWN:

1 - How do you think you'll do next year in _____ ?

2 - How does your teacher think you'll do in _____ ?

3 - How does your family think you'll do in _____ ?

Fill in subject

APPENDIX G

WORKSHOP HANDOUT

LEARNED HELPLESSNESS AND MASTERY ORIENTATION

IMPLICATIONS FOR TEACHERS

LEARNED HELPLESSNESS

*A state in which an individual perceives outcomes and responses to be independent of one another.

*A condition that results when outcomes are not under personal control (Weiner, 1986).

*A state in which an individual perceives no relationship between actions and outcomes in achievement situations.

MASTERY ORIENTATION

*A condition characterized by a personal drive to succeed in achievement situations, heightened by the prospect of failure.

*"Stick-to-it-tive-ness"

WAYS THESE ORIENTATIONS MANIFEST THEMSELVES IN OUR STUDENTS:

LEARNED HELPLESS

ACTIONS	STATEMENTS
*These may be difficult to observe as these students tend to be "invisible".	*"I can't!"
*They give up without trying or with very little effort, even though task is within ability level.	*Use of excuses for express purpose of avoiding particition: - "My arm hurts" - "I'm not sure how much I'll be able to do today ecause..."
*Change places in line to avoid participation.	
*Going through the motions.	

MASTERY ORIENTED

ACTIONS	STATEMENTS
*"Give me the ball" attitude.	*"You can count on me!"
*Class leaders.	*"I can do that!"
*First to demonstrate/attempt new skills.	*Arielle response: "Not yet"
*Will NEVER sit out, even when sick, injured, etc.	
*Initial failure causes an increased determination and perhaps more creative approach.	
*Very hard on themselves ("Own worst enemy").	
*Will see task through until the end - teacher may have difficulty getting this person to stop.	
*May be more concerned with personal performance than with class/team goals.	

IDENTIFYING THE LEARNED HELPLESS CHILD

*Child routinely avoids or withdraws from achievement situations, although he/she possesses sufficient ability.

*Inventories to measure causal attributions:
- Intellectual Responsibility Achievement (IAR) Scale - Crandall, Katkovsky & Crandall, 1965
- Martinek's modified version of IAR - Martinek, 1988
- Attributional Style Questionnaire (ASQ) - Peterson et al., 1982
- Mastery Orientation Inventory (MOI) - Reynolds & Miller, 1989

*Teacher ratings:
- Pupil Behavior Checklist (PBC) - Fincham & Cain, 1984.
- Global Helplessness Rating Scale (GHRS) - Reynolds & Miller, 1989

INTERVENTIONS

1. Success Only

2. Success with Programmed Failure

3. Attribution Retraining - Effort Feedback

This latter intervention strategy is most frequently used in learned helplessness research and can be routinely employed by the classroom teacher. It involves making students aware that they are IN CONTROL of achievement outcomes. Failure should NOT be avoided, but dealt with by informing the student that it is a result of too little effort rather than insufficient ability. Success is a result of sufficient effort. Current research concerning effective schools supports the contention that we are guilty of expecting too little of our students far more often than of expecting too much!

BE PATIENT - Remember, HABITS TOOK A LONG TIME TO FORM AND WILL TAKE A LONG TIME TO CHANGE! The rewards, however, make the efforts worthwhile!

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APPENDIX H

TABLES 16a, 16b, & 16c:
TASK PERSISTENCE
X ORIENTATION
X SCHOOL

MATH

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
75.17	78.40	76.67	87.01	85.00	85.99

PHYSICAL EDUCATION

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
63.03	88.43	75.83	90.05	87.18	88.96

READING

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
78.15	78.57	78.35	80.00	80.37	80.15

ALL SUBJECTS

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
72.77	81.61	77.03	85.94	84.38	85.26

Table 16a. On-task percentages of learned-helpless and mastery-oriented students X subject X task difficulty - Urban setting.

MATH

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
72.73	78.96	75.77	95.00	92.27	93.63

PHYSICAL EDUCATION

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
73.86	75.68	74.75	80.12	80.73	80.42

READING

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
67.58	77.29	72.50	92.02	83.67	88.26

ALL SUBJECTS

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
71.37	77.40	74.36	89.51	85.98	87.82

Table 16b. On-task percentages of learned-helpless and mastery-oriented students X subject X task difficulty - Small town setting.

MATH

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
72.22	75.99	74.28	91.42	88.60	89.92

PHYSICAL EDUCATION

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
77.03	91.06	85.79	88.62	88.21	88.43

READING

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
86.10	88.54	87.14	90.91	91.82	91.43

ALL SUBJECTS

LEARNED HELPLESS			MASTERY ORIENTED		
EASY	HARD	OVERALL	EASY	HARD	OVERALL
78.76	84.23	81.66	90.30	89.65	89.96

Table 16c. On-task percentages of learned-helpless and mastery-oriented students X subject X task difficulty - Rural/Consolidated setting.

APPENDIX I

TABLES 17a, 17b, & 17c: CAUSAL ATTRIBUTIONS X ORIENTATION X SCHOOL

MATH

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	55.56	33.33	50.00	100.00
ABILITY	33.33	33.33	50.00	-
OTHER	11.11	33.33	-	-

PHYSICAL EDUCATION

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	25.00	50.00	66.67	85.71
ABILITY	75.00	25.00	33.33	-
OTHER	-	25.00	-	14.29

READING

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	62.50	-	50.00	50.00
ABILITY	37.50	75.00	50.00	16.67
OTHER	-	25.00	-	33.33

ALL SUBJECTS

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	44.83	27.27	56.52	76.47
ABILITY	51.72	45.45	43.48	5.88
OTHER	3.45	27.27	-	17.65

Table 17a. Percentages of causal attributions X orientation X subject X outcome - Urban setting.

MATH

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	41.18	23.08	57.14	73.33
ABILITY	58.82	46.15	42.86	13.33
OTHER	-	30.77	-	13.33

PHYSICAL EDUCATION

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	61.54	57.89	82.35	85.00
ABILITY	30.77	31.58	17.65	15.00
OTHER	7.69	10.53	-	-

READING

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	50.00	100.00	63.64	80.00
ABILITY	43.75	-	36.36	10.00
OTHER	6.25	-	-	10.00

ALL SUBJECTS

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	50.00	55.00	70.13	80.00
ABILITY	45.65	30.00	29.87	12.73
OTHER	4.35	15.00	-	7.27

Table 17b. Percentages of causal attributions X orientation X subject X outcome - Small town setting.

MATH

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	60.00	50.00	58.33	66.67
ABILITY	40.00	12.50	41.67	25.00
OTHER	-	37.50	-	8.33

PHYSICAL EDUCATION

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	60.00	53.85	25.00	50.00
ABILITY	40.00	38.46	75.00	37.50
OTHER	-	7.69	-	12.50

READING

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	50.00	50.00	38.46	90.00
ABILITY	50.00	25.00	61.54	10.00
OTHER	-	25.00	-	-

ALL SUBJECTS

	LEARNED HELPLESS		MASTERY ORIENTED	
	Success	Failure	Success	Failure
EFFORT	56.67	51.72	39.02	65.79
ABILITY	43.33	27.59	60.98	26.32
OTHER	-	20.69	-	7.89

Table 17c. Percentages of causal attributions X orientation X subject X outcome - Rural/Consolidated setting.