


6-6-2016

# Connection between effort and academic success in learning disabled students identified with learned helplessness

Nancy D. Braunwell

Let us know how access to this document benefits you - share your thoughts on our feedback form.

Follow this and additional works at: <https://rdw.rowan.edu/etd>

 Part of the [Disability and Equity in Education Commons](#), and the [Special Education and Teaching Commons](#)

---

## Recommended Citation

Braunwell, Nancy D., "Connection between effort and academic success in learning disabled students identified with learned helplessness" (2016). *Theses and Dissertations*. 1597.  
<https://rdw.rowan.edu/etd/1597>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact [LibraryTheses@rowan.edu](mailto:LibraryTheses@rowan.edu).

**CONNECTION BETWEEN EFFORT AND ACADEMIC SUCCESS IN  
LEARNING DISABLED STUDENTS IDENTIFIED WITH LEARNED  
HELPLESSNESS**

By

Nancy Drake-VanDyke Braunwell

A Thesis

Submitted to the  
Department of Interdisciplinary and Inclusive Education  
College of Education

In partial fulfillment of the requirement

For the degree of  
Master of Arts in Special Education

at

Rowan University

May 1, 2016

Thesis Chair: S. Jay Kuder, Ed.D.

© 2016 Nancy Drake-VanDyke Braunwell

## **Dedications**

This research and thesis is dedicated to all my sons, Josh, Jared, Sean and Phil, and grandson Brody (the VanDyke men) for taking me places I would have otherwise missed. Josh, for always being my rock, and Jared, for never giving up; both of you for defying all the odds and proving nothing is impossible. You can eat an entire elephant if you eat it one bite at a time. You have shown me no mountain is too high to climb if you really want to get to the top. My father, Richard Drake, for teaching me I can accomplish anything I set my mind to. My mother, Rose D'Imperio Drake, for instilling a sense of wonder and appreciation. Also to the students I have dedicated my life to teaching and those I will teach. I have found in my experiences students that are classified as learning disabled will figure it out, find a way, go under or over or around the obstacle. You never fail to solve the problem. You just do it your way. Don't ever stop, don't ever give up, realize the value of being you. You inspire me and I, too, am a member of your elite club.

## **Acknowledgements**

I would like to thank the Lord for directing my work, Dr. Kuder for his guidance, Ellen Rondinelli for her gift of time and Lauren Lazar for dedicated editing.

## **Abstract**

Nancy Drake-VanDyke Braunwell  
CONNECTION BETWEEN EFFORT AND ACADEMIC SUCCESS IN LEARNING  
DISABLED STUDENTS IDENTIFIED WITH LEARNED HELPLESSNESS  
2015-2016  
S. Jay Kuder, Ed.D.  
Master of Arts in Special Education

This research was conducted with high school students eligible for special education services that have also been identified with learned helplessness. Students were given the intervention of study activity and exposure to success via assessments to determine if they would make a connection between their effort and their academic success. This connection is typically absent in learned helpless students. The data indicated that these students did make that connection and would continue the study activity on their own time after the intervention period to continue to experience success.

## Table of Contents

Acknowledgements .....	iv
Abstract.....	v
List of Tables .....	vii
Chapter 1 .....	1
Chapter 2 .....	6
Chapter 3 .....	19
Chapter 4 .....	23
Chapter 5 .....	30
References .....	34

## List of Tables

Table	Page
Table 1: Mean Group Scores .....	24
Table 2: Individual Mean Results for Experimental Group .....	25
Table 3: Individual Mean Results For Control Group.....	26
Table 4: Number Of Students From Experimental Group Exceeding 70% .....	28
Table 5: Number Of Students From Control Group Exceeding 70% .....	28



## Chapter 1

Students that are classified as special education report more experience with failure in the classroom than non-classified students. Many students with this pattern of failure acquire “learned helplessness”. By definition, learned helplessness is a mental state in which an individual is forced to bear painful or unpleasant stimuli and becomes unable or unwilling to avoid that stimuli, even if there is a way to do so. This is because the individual has learned that it cannot control its environment or situation. Psychologist Martin E.P.Seligman, of The University of Pennsylvania, first discovered this phenomena in the late 1960s and early 1970s while he was conducting experiments on classical conditioning with dogs. Humans too may develop learned helplessness.

In the classroom learned helplessness may manifest itself in the following student behaviors: disruptiveness, anger, inattentiveness, anxiousness, giving up quickly, not completing work, fear of attempting, avoidance, lack of motivation, procrastination and inability to work to one’s full potential. These students have developed self-defeating strategies that lead them to the very failures they would like to avoid. They have a distorted perception of their abilities. They feel they are “stupid, incapable of success and have no control over their environment”.

Individuals that have developed learned helplessness do not see any correlation between their efforts and success or failure. By the time these students have reached high school they have experienced failure so much that they believe they cannot be academically successful and they are less motivated and less engaged in the classroom. These students are less likely to reach their fullest potential.

We all experience failure but not all of us develop learned helplessness. The most widely accepted explanation for this phenomena is the difference in how we internalize our environmental situations. People that develop learned helplessness categorize situations as global or specific, stable or unstable, and external or internal. An internal factor can be stable (always with the person) or unstable (due to an outside factor, random in appearance). External factors are the same with the exception that they are from an outside environmental situation. Global is on a large scale whereas specific is on a small scale. An example of a global internal stable factor is failing a test due to testing anxiety. An example of an internal unstable factor is having an argument before the test. An example of an external factor is the test was written poorly and unstable is that the test was given after a long weekend.

A person who develops learned helplessness internalizes a failure as a constant that spans over all areas of learning. They do not see a connection between their effort or lack of, and academic failure. They see no reason to study because they believe it will not make a difference and that they will only fail again. They may even feel this way about all aspects of their life. A person that does not develop learned helplessness will experience a failure as an isolated incident. They will analyze the reason for a poor test grade and determine activities or strategies to improve the next test score.

The motivation theory of attribution has helped us understand students with a pattern of failure. Their outlook can be explained by their belief of the four following attributions:

1. Not having the ability (I just can't do it)
2. Luck (I guessed correctly)

3. The task is too difficult (too hard)

4. They do not see a connection between their effort and the outcome

Therefore they will not expend enough effort. This research focuses on the effects of attribution number four, the connection between effort and outcome in the presence of success.

Almost anyone that has taken the time to reflect on the correlation of time they have spent studying and their academic success will arrive at the assumption that the more effort they spend the more success they achieve. As mentioned before, this is not the case with students that display learned helplessness. They do not make that same connection in part because of lack of success.

My hypothesis is that after students experience success on a regular basis they will be more motivated to perform the activities that led to that success and determine there is a positive correlation between their effort and the rate of their success. I believe modeling effort activities that help students study for tests and quizzes will raise their test and quiz grades. The outcome I expect to see is that students will realize there is a connection between their effort/study activities and their academic success and that this realization will motivate them to study on their own to continue to achieve success.

The two questions examined in this research are:

1. Will students that are provided with structured study make a connection

between their effort and rate of success?

2. Will students be motivated to continue to use study strategies to obtain better

grades, on their own time?

The independent variable for this research is the study strategy. The dependent variables are assessment grades, awareness between self-effort and success and motivation to continue activities that correlate with success.

The objective of this research is to use study strategies to help students make the connection between effort and their academic success, therefore motivating them to study. The students used in this research are a heterogeneous mixture of classified special education students with various learning disabilities. All students are in mainstream classrooms. The control group is a combination of two classes that have both classified special education and non-classified students.

As evident from personal observation and research among colleagues that are educators of both classified and non-classified students, more classified students display characteristics of learned helplessness than do their non-classified counterparts. Some of the other problems stemming from learned helplessness are depression, test anxiety, withdrawal, not attempting new challenges, social defects, hostility and appetite loss. Learned helplessness is a classically conditioned acquired behavior and affects a person holistically. Therefore we can deduce that it is a great stumbling block not only in the education of an individual but throughout all aspects of their life. Educators are in a unique position in which we are in daily contact with students. In some cases that relationship is intact for several consecutive years. We are consistently physically present in the student's life and, given the right tools, a student may be able to make a connection between their effort and outcome. This statement implies that by the end of this research study students may be able to attribute their academic success to activities

they performed to ensure it. That cognitive connection will enable them to have more confidence and use the strategies and activities that brought them success more often.

We can further imply that if students do connect effort activities to their success those students will be less disruptive, which will benefit all the students. This connection could change the course of a student's life by creating a lifelong learner and diminishing the effects of depression, test anxiety, withdrawal and social defects. With this information, teachers may see the value of teaching study strategies, building in study time to class lessons and aiding students to make the connection between effort and outcome. This should start in lower grades to allow the students to experience effort-related success. It would stand to reason then that less students would be experiencing learned helplessness by high school level. This strategy will also help students of any grade and therefore it is a valuable asset to any classroom.

This research focuses on examining how students that have acquired learned helplessness connect effort to academic success in the presence of study strategies. The participants of this study are mainstream classified students. Both the experimental and control groups receive the same instruction with the exception of built-in study time and strategies during class. Students will chart their academic success both before and after the experiment and be asked to draw a conclusion from the data. In theory, I assume students will make a connection between effort and outcome and choose to study on their own time. The implication in the educational arena is that teachers will want to add these strategies in their classrooms.

## Chapter 2

Many teachers have students that are discouraged, exhibit inappropriate behavior and have low academic achievement. These students feel helpless to the outcome of their learning (Baker, 2008). According to Diener & Dweck (F. Canino 2001), these students that have acquired learned helplessness do not make much effort to learn; they do not persist and may refuse to even attempt the work or simply give up. They will spend time and energy on off-task behaviors. The problem researched, the cycle of failure created by learned helplessness (Yates 2009), is a significant portion of my research. Learned helplessness is experienced in a higher degree in mathematics because the answers in this subject are either correct or incorrect (McLeod, 1992). This is also the case in biology, the subject of my research. Through discussion with students' teachers, I have observed these same students have had less success in science throughout their careers than in classes that are subjective in nature.

The focus of research conducted by Shirley Yates (2009) had objectives that focused on teacher input on the behavior analysis checklist used to identify students with learned helplessness and if a shortened checklist would be a better instrument. Of noted interest was the decision to order the numbers of frequency of observed behaviors in students being screened for learned helplessness from [0,1,2,3,4] to [4,3,2,1,0] to match the order of negative and positive connotations to be the same in both the ranking for learned helplessness and mastery orientated students. At least one teacher reported incorrect observations. They gave every student a ranking of 3 on every question which

not only is unable to be factual but also will skew the data of any research in which it is used.

In conclusion, the shorter observation behavior analysis checklist made no difference in the statistical occurrence of learned helplessness students. Roughly the same number of students were perceived to have learned helplessness using the shorter behavior analysis checklist as was found using the longer check list. Of great concern is observer accuracy when filling out the checklist. Both the control and research groups will be derived from the checklist report by teachers. Therefore, to insure greater accuracy, I determined having teachers fill out the checklist twice, several days apart, and averaging the score yielded a more accurate result of identifying students with learned helplessness. I will be using the shorter version of the checklist to conduct my research as many researchers in this field are now doing. Over time the shorter checklist has been used more often than the longer list, incorporating key observations, retaining the focus of the observer with greater accuracy.

My focus is on the lack of connection students who are classified as special education and have learned helplessness place on the correlation between their lack of effort and occurrence rate of success or failure. In the theory of attribution (Weiner 1974), success and failure are outcomes. Success is obtaining the desired outcome. Students with learned helplessness perceive they have no control over this outcome. They feel they have no control over achieving the desired outcome of success. They do not perceive effort as having any impact on the outcome. Among other things, the research by Dweck & Goetz (1978) provided evidence that students that attributed insufficient effort to failure will work harder and longer than those who don't. The

findings by (Ames & Archer 1988) determined that students having a mastery goal orientation may develop thinking that keeps them involved and increases the likelihood that they will pursue the activities that foster learning. It is assumed by this researcher that the findings (Ames & Archer 1988) support my hypothesis that after experiencing academic success, students will make the connection that effort has a positive correlation on outcome and that they will continue to perform the study skills on their own time that enabled them to be academically successful. The major difference in my study is the focus on studying strategy skills. Spence & Stan-Spence (1990) described strategies for behavior modification in the classroom as ones that are considered active learning. They further discuss that effective study skills are not typically taught to students. Students therefore view studying to be a last minute attempt at rote memorizing the material. During my study I will be teaching study skills, practicing them and demonstrating that study skills should be used well in advance of an assessment.

Feuerstein's theory of Cognitive Modifiability (Feuerstein, Falik & Feuerstein "The Cognitive Elements of Neural Plasticity") explains that intelligence is not fixed; it can be improved through learning strategies. My research is directed at teaching study skills and incorporating them in the classroom via active learning as the variable of this study. Many discoveries have taken place since Feuerstein's early work with holocaust survivors in the field of neuroscience. According to Feuerstein, Feuerstein, Falik, and Rand (2006), cognitive changes that occur due to exposure to experiences is the type of change that affects the basic structure of behavior (p. 24). It is this researcher's belief that teaching, then implementing study strategy to students with learned helplessness will



change their behavior from one of little effort to that of more effort especially in the area of study strategies.

Why do some students acquire learned helplessness while others acquire mastery orientation? This question was researched by Elliot and Dweck (1998). The two main parts of this study involved giving students feedback on their current skill level as high or low and having students select either a learning task or a performance task. Students were told the learning task would cause confusion and mistakes but that they would learn a new skill that would help them over time. They were told that no new learning would take place during the performance task. During this study all students were given the same tasks. The result supported the students' behavior, whether learned helplessness or mastery orientated, as being directly related to their preconceived ideas of themselves as having the ability or not having the ability to succeed. When they perceived their ability as low, they responded in a learned helplessness behavior. When they perceived their ability as high, they responded in a mastery-oriented behavior. These behaviors or patterns are learned (Seligman 1994). It is therefore of great necessity to determine if they can also be unlearned or reversed. I propose that if students determine a connection between their effort and the outcome of their success or failure, they are more likely to perceive themselves as having a high skill level and adopt behaviors and patterns of students that are mastery oriented.

Several interventions were researched and findings were considered as they related to alleviating the effects of learned helplessness in the classroom. A study by Weisenberg, Gerby & Mikulincer (1993) hypothesized that persons who received 10 minutes of aerobic exercise, chocolate or relaxation guided imagery prior to a task

suffered less anxiety while attempting the task that was described to be unsolvable. These researchers determined all three of those interventions afforded the individual a state of relaxation and therefore they experienced less anxiety. Their anxiety level was measured by the accuracy of answers on a performance task. This more relaxed state led to a higher accuracy rate and therefore a better performance. Their findings were that all three interventions did lessen anxiety and the effects of learned helplessness.

Allison Muller (2005) found that a more positive self-perception counteracted the effects of learned helplessness. Middle and high school students determined to have acquired learned helplessness who volunteered their time to projects that met genuine human needs experienced this. Offering their time to others allowed them to see themselves in a more well rounded global perspective and not just the narrow perception of a failing student. This offered these individuals an alternate aspect of self-assessment in success, as it was not measured by a test score but by filling a need of another person. Volunteers were thanked by the individual; this feedback allowed them see the influence of their efforts as being highly successful. Students were interviewed prior to and after the volunteer experience. After the volunteer experience, these students reported experiencing less behaviors of learned helplessness than prior volunteering.

My summary of learned helplessness is that it is a distorted perception of oneself that has been manifested by experiences of failure triggering more experiences of failure. It is so deep rooted that it may cause other psychological dysfunctions such as, but not limited to, depression and anxiety. As educators we often determine success by a numeric grade, not by the progress a person has made. Personal progress is the essence of success in learning. If a person is progressing but has not yet mastered the material

and ability to gain that numeric passing grade on a standard assessment, they are deemed to be a failure, at least momentarily, in that course of study. In order to combat learned helplessness in the classroom an individual must have the opportunity to gain a realistic perception of themselves, their ability to learn as personal progress, to identify the behaviors that create that success and the motivation to implement those behaviors in daily life. This requires the learned helplessness individual to not only gain a new self-perspective but also adapt new behaviors. During my study I will be affording students new skills to be more successful which will offer the opportunity to gain a new self-perspective as a foundation that may lead to a change in behavior.

Learned helplessness, as many behaviors are, is acquired by conditioning. Since it is a learned response, it stands to reason that it can also be unlearned or reversed. B.F. Skinner stated permanent change in behavior is due to experience. B.F. Skinner (1938) gives validity to the ability to unlearn or reverse the effects of a learned response in that he states the change is a relatively permanent change in behavior, not completely permanent. Skinner coined the term operant conditioning; it describes the changing of behavior by the use of reinforcement, which is given after the desired response. Skinner identified three types of responses that can follow a behavior. They are neutral, reinforcers and punishers. Reinforcers can be negative or positive and increase the likelihood that the behavior will be repeated. This type of reinforcement can easily be incorporated into the classroom. I typically use them in my classroom and they will be used during the course of this study. Both positive reinforcement (providing a consequence an individual finds rewarding) and negative reinforcement (removal of

unpleasant reinforcement) will strengthen the possibility that the behavior will happen again.

Behavior modification is necessary for transitioning a learned helplessness student into a goal-oriented student. Two examples of reinforcements to alter behavior in the classroom are to provide feedback on student performance (compliments, approval, encouragement, and affirmation) and the use of a token economy to reinforce the targeted behavior. Both are accustomed behaviors to students in my classes.

Changing habits, beliefs or the way we do things can be extremely difficult. Those types of changes require a process to enable the changes to be lasting. A model of change was developed by alcoholism researchers: The Transtheoretical Model (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992). They based this model on their observations of how people successfully went about changing problem behaviors such as smoking, overeating and problem drinking. This model is titled “The Stages of Change”. The model involves six stages that take a person from learning to identify a problem through living without that problem. Even though this model was developed with addictions in mind, the principles can be adapted to any behaviors one might want to change, including learned helplessness. The six stages of the model are: precontemplation, contemplation, determination, action, maintenance and termination.

Precontemplation, stage 1, is when the person does not see that they have a problem; this is also known as the denial stage. The reasons for denial may be that the individual is reluctant (impact of problem has not become fully conscious), rebellious (heavy desire to make their own decisions regardless of the implications), resigned (have

attempted, failed and given up hope) or have rationalized why this problem is not really a problem for them. Contemplation (preparation), stage 2, is when the individual is willing to consider there is a problem but they are still not ready to commit to doing anything about it. It is beneficial during this stage to help the individual with a risk-reward analysis. You may choose to do this verbally or visually (in writing). Choosing to complete this in writing will allow the individual to have a constant reminder of the risk-reward analysis.

Determination, stage 3, is when the individual has committed to change and makes a realistic plan for change. Action, stage 4, occurs when the individual puts their plan into action. This usually involves some sort of public commitment. Public commitment helps the person gain the support of others. As the individual works their plan and begins to see that it is working, they will continue with it and make adjustments along the way. Maintenance, stage 5, is the stage of successful change. In this stage, the individual is living free of old behaviors and the threat of a return to old patterns becomes less intense and less frequent. Relapse to old behaviors may happen but are usually brief and the individual learns from them and reconfirms their commitment. Termination, stage 6, is the ultimate goal and the last stage. The individual is free from the old behavior (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992).

The title “Learned Helplessness: Perceived Effects of Ability and Effort on Academic Performance Among EH and LD/EH Children” was conducted to determine the perceived locus of academic outcomes among students classified as emotionally handicapped (EH) and students that are learning disabled, emotionally handicapped LD/EH. Comparison of the two groups revealed that EH students identified more

personal responsibility for academic failure than did the LD/EH students. The two groups did not differ much in responsibility for academic success (Luchow.J., Crowl, T & Kahn,J. 2001).

The group of students for this study was between the mean age of 12 and 13 ½ years of age. They all attended a private day school for EH students. All were administered the Intellectual Achievement Responsibility Questionnaire. The results of this questionnaire lead to the researchers conclusions. The major difference is the EH students attributed success significantly to effort where the LD/EH students did not. The study discusses the position taken by some investigators that task performance can be improved by students changing beliefs about the causes of their performance (Rotter, 1996; Weiner, 1972; as cited by Luchow.J., Crowl, T & Kahn,J. 2001). Non-persistent children who were taught to attribute their failures to a lack of effort rather than to a lack of ability demonstrated significantly better task performance than non-persisters who were not given attribution training (Luchow.J., Crowl, T & Kahn,J. 2001). During my study, I hypothesize many students will gain an attribution for the correlation between effort and outcome.

Another study, “Academic Procrastination, Emotional Intelligence, Academic Self-Efficacy, and GPA: A Comparison Between Students With and Without Learning Disabilities,” describes the research conducted by Hen & Goroshit (2012). This study was conducted on undergraduate college students in which 35% were classified as learning disabled (LD) and 65% were non-classified students. All LD students that did not meet the entrance criteria for this college were required to take a 6 week intensive

preparation program over the summer that focused on academic skills, and self-awareness.

The study group (both classified and non-classified students) filled out scales on EI (Emotional intelligence), academic self-efficacy and academic procrastination, in early fall, after the summer intensive study skill course. “The results indicated that LD students have a lower EI and academic self-efficacy and higher academic procrastination than non-LD students” (Hen, M & Goroshit, M. 2012). This study examined the relationships among academic procrastination, EI, and academic performance noted as academic self-efficacy in 287 LD and non-LD students. Results indicated that the effect of EI on procrastination and GPA was stronger in LD students than non-LD students. It also indicated that LD students score lower than non-LD students on EI and academic self-efficacy but higher on academic procrastination (Hen, M & Goroshit, M. 2012). I would have liked to see this study have a more even distribution of LD and non-LD students.

The study conducted by Gotshall & Stefanou discusses the evidence of a learned helplessness relationship in teaching students that have been referred for intervention as a policy of the No Child Left behind Act and the self-efficacy of those that teach them. Teachers are responding to the new responsibilities placed on them due to response to intervention (RTI). These responsibilities are among all teachers, not just trained special education teachers. Mainstream classrooms are a combination of non-classified students, classified students and students that are not yet identified. Some are going through the process and are in currently in RTI. Evidence strongly shows a correlation between the teacher’s self-efficacy and the student being moved up a tier on the RTI ladder. Moving

up a tier correlates to a greater chance of being classified at an earlier time, if the student is deemed learning disabled. Teachers that had greater self-efficacy tended to work longer with a student before referring them to move up a tier. This response had no correlation to the training the teacher received; it was strictly linked to teacher self-efficacy.

This research was conducted on 22 k-8<sup>th</sup> grade teachers. These teachers were asked to respond to a hypothetical case study scenario (Gotshall, C. & Stefanou, C, 2011). They choose a response that best characterized their ability to handle the situation as: a) know what to do; b) apply interventions after consolation; or c) referral to a higher tier. This research speaks not only to the attribution a teacher places on his/her own ability but to the eventual outcome of the student's classification.

The ability of the brain to change both structurally and behaviorally is supported by the review by Feuerstein, Feuerstein, Falik & Rand (2006). They discuss the theory of structural cognitive modifiability (SCM), which states that both mental and behavioral structures can be altered by exposure to certain conditions. Stronger support is evidence of neuroplasticity. Neuroplasticity is the brain's ability to change through life experiences. These changes are the brain's creation of new neural pathways and/or reorganization of existing neural pathways. Earlier scientists did not believe an individual's cognitive ability was changeable once adulthood was reached. Newer evidence suggests otherwise (Dr. Pascale Michelon 2008). It was believed that, as we aged, the connections in the brain became fixed. Research has shown that the brain never stops changing through learning. Plasticity is the ability of the brain to change via learning (Michelon, P. 2008).



Brain plasticity refers to the brain's ability to change in both structure and function. Experiences are major stimuli of brain plasticity. Experience produces many changes in the brain including dendritic length, spine density, synapse formation, increased glial activity, and altered metabolic activity. These anatomical changes are correlated with behavior change (Bryan Kolb and Ian Q. Whishaw 1998; as cited by Michelon, P. 2008 Draganski, Gaser, Busch, Schuierer, Bogdahn & May 2004).

Brain imaging was used before and after the learning of a new task (i.e. juggling). The images showed selective structural changes in the anatomy of the brain. Later the same researches used imaging before and after extensive learning, on two groups of medical students. One group (control group) was not studying for exams at that time and the other group (experimental group) was. After the three month study period, the images showed changes in the anatomy of the medical students that were studying and no change in the control group of non-studying students (2004).

Summarized from “Cognitive Elements of Neuro Plasticity” are critical elements for the process of cognitive modifiability and neural plasticity. Several of those elements will be implemented during my study: repetition, variation, intensity and persistence (Feuerstein, Falik, Refael and Feuerstein 2013). The repetition discussed in the review emphasizes it is not just repeated exposure that is required for the desired outcome but challenge and multi-modality (variation) during repetition are necessary to make permanent change. The intensity of instruction discussed in the review to establish structural cognitive modifiability requires durations of time and intensity beyond what is tradition.

Also important for success are concepts and techniques to develop self-regulation and self-awareness (Ylvisaker and Feeney 2002). Self-regulation is a key element involved in changing behaviors. The framework of self-regulation is modeling and guiding a person through the process of gaining the following skill set: self-awareness of strengths and weaknesses, reasonable goal setting, planning and organizing behaviors towards that goal, self- monitoring and flexible self-adjustment. These skill sets coincide with the “stages of change” described by the model (Prochaska & DiClemente, 1983; Prochaska, DiClemente, & Norcross, 1992).

After review it seems reasonable to assume that implementing study strategies framed around the basis of modifiability will enable students to have less anxiety, lessen the effects of learned helplessness and change not only their pattern of behavior but also their neuro anatomy (we will not be able to detect neuroplasticity, as we will not be taking images). With these changes the student may make a connection between their effort and success and may desire to continue the behaviors which made them successful.

### Chapter 3

The location of this study is one of five high schools in a geographically large school district that services grades 9-12. The community is economically diverse but not culturally, religious or ethnically diverse. It is primarily a Christian Caucasian community. Many members' families have deep roots in the community, having been farm owners in this area for many generations. Students that attend range from wealthy to poverty level; however, the majority of students are from upper middle class families. Approximately 1,300 students attend the school in which 65% of the students live in a dual parent household, which is higher than the national average of 46%. This particular school, in its 11<sup>th</sup> year, is located on a large piece of property with several sports fields at its perimeters and is well maintained. Other resources in this school, such as student programs, clubs, school supplies, technology and support personal, are also plentiful.

The study group is high school mainstreamed students who have been previously identified as eligible for special education services. Participants of this study, both the control group and experimental group, were selected because they have all been identified as displaying the characteristics of learned helplessness through observations by their main classroom teacher, other current teachers of these students and myself. These characteristics are identified on the student behavior checklist in items 1, 4, 6, 8, 9, 12, 14, 17, 18, 20, 21 and 23 (appendix 1). The checklist was developed by Fincham, Hokoda and Sanders in 1989 to enable teacher reports as a means of identifying students with learned helplessness. Through observable behavior the teachers answered questions on the checklist that would determine learned helplessness. This 5-point scale rates

students on 12 learned helplessness and 12 mastery-oriented items. The items were numbered 1 through 5, 1 being not true, 3 somewhat true and 5 very true about the students' observable behavior in the last 3 months. Their score was derived by the number of total helpless behaviors minus the number of mastery-oriented behaviors.

The study group was high school mainstreamed classified students that range in age from 15 to 16. The total number of students in the control group was fourteen; eight were male and six were female. Of the 8 male participants, 3 were classified multiply disabled, 1 was classified specific learning disabled due to deficit ability in mathematical calculation and problem solving, and 4 were classified emotionally disturbed. Classification of the female participants in this group were 4 multiply disabled and 2 emotionally disturbed. The total number of students in the experimental group is fifteen. Nine were male and seven were female. Of the 9 males, 5 were classified multiply disabled, 1 was classified specific learning disabled also due to deficit ability in mathematical calculation and problem solving, 1 other health impaired due to Crohn's disease, 1 was classified emotionally disturbed and 1 visually impaired. Of the 7 females in the experiential group, 5 were classified as multiple disabled, 1 auditory impaired and 1 specific learning disabled due to deficit in reading comprehension.

Any grade over 59.5% is a passing grade in the school district of this study. Students polled expressed they did not feel comfortable considering a successful grade any lower than 70%. Therefore success for the purpose of this study will be defined as a 70% or better grade on performance assessments, specifically quizzes and tests. Through observation and collaboration with colleagues it has been noted that students with learned

helplessness tend to perform the poorest on formal assessments such as tests and quizzes. This is the area that I believe will give them the greatest feeling of confidence with continued success. During this research students will be continuously exposed to success via passing grades directly related to effort/study activities. This is the opposite of what students usually experience. The independent variable, act of studying, will take place for twenty minutes a class period 2 times per week.

The experimental group and control group received the same classroom instruction with the exception of the built-in study activity and accommodations specific to the students' classifications. To accommodate the different disabilities in the experimental group, an FM system was used (wireless, portable device that uses radio transmission to send auditory signals to the hearing impaired student via their personal receiver). The experimental group received time in the classroom to study for each test and quiz for an eleven-week period and the control group did not. This study time was spread over the two-day period prior to the assessment with 15-20 minutes each day dedicated to study. The first day, the students received a study guide with questions and answers to the test topic. Students paired off and verbally quizzed each other using these questions. The second day the students silently and individually studied the same material.

All care was taken to keep the control and experimental groups as equal as possible. It should be noted, however, that the control group had students classified as emotionally disturbed and the experimental group did not. These particular students are usually a bit more disruptive than the other students, which accounts for the difference in dynamics of the classes between experimental and control groups. Also the use of the

FM device usually dictates the pace of the user to be slower than when not used.

Therefore my speech in the classroom was slower and more deliberate when addressing the experimental group than when addressing the control group. I do not believe those small discrepancies had a bearing on the outcome of the experiment.

All students from both control and experimental groups graphed the results of their performance prior to the study using a bar graph to represent the occurrence of each test or quiz. Twenty assessments were entered along the X-axis. Grades charted in increments of 5% were entered along the Y-axis. Students' current performance was derived from the percent of assessments that each student scored over 70% prior to the study. Students were instructed to repeat the same graphing of assessment results after the study had concluded. All students were assigned a number for privacy purposes. Results of all graphs were given to all students. Students were then instructed to draw a conclusion from the data. Only the experimental group was asked if they would continue to study even if time is not allotted for during class. They were also asked if they see a connection between their efforts in studying the material.

## Chapter 4

This research involved 29 high school students in grade 10, both male and female. They were classified special education students in mainstream classrooms who displayed the characteristics of learned helplessness. This study was preformed to determine if exposure to success would create a connection in these students between their effort and academic outcome.

The two questions examined in this research were:

1. Will students that are provided with structured study make a connection between their effort and rate of success?
2. Will students be motivated to continue to use study strategies to obtain better grades, on their own time?

These students were randomly assigned to 1 of 2 groups. The experimental group consisted of 15 of the above-mentioned students. The remainder of the students were in the control group. Both groups received the same instruction with the exception of the experimental group receiving the intervention of study activity during class time.

Prior to the intervention phase, students from each group completed a series of four quizzes and two tests from the “Biology Foundations” textbook (Miller and Levine, 2011). This process was repeated with both groups following the intervention that was delivered to the experiment group. The mean scores for the quizzes and tests were calculated for both groups in both the pre- and post-intervention phases. The results will appear in table 1.

Table 1

*Mean Group Scores*

Group	Pre-intervention quizzes	Pre-intervention tests	Post-intervention quizzes	Post-intervention tests
Experimental	65	66	69	70
Control	66	65	68	68

The results show that both groups improved from the pre-intervention to post-intervention phases, although the improvement for the experimental group was somewhat greater than the control group. A t-test on the difference between pre- and post-test scores was conducted. The difference between pre- and post-intervention quizzes for the two groups was statically significant ( $t=2.0, p<.05$ ). The difference between pre- and post-intervention tests scores was not statically significant.

In addition to examining the overall group scores, an analysis of individual student scores was also conducted. The results for the experimental group are shown in Table 2. Results for control group are shown in Table 3. Table 2 shows a rise in percentage points in tests and quizzes for all students, with the exception of 1 whose score remained the same. The number of students and rise in percentage points are as follows: 2 students with rise of 2, 4 students with rise of 3, 2 students with rise of 4, 2 students with rise of 5, 1 student with a rise of 6, 1 student with a rise of 10, 1 student with a rise 11 and 1 student with a rise of 13. The number of students and rise in percentage points for test are as follows: 2 students with a rise of 3, 6 students with a rise



of 4, 4 students with a rise 5, 1 student with a rise of 7, 1 student with a rise of 10 and one student stayed the same. The data in Table 3 shows a rise in percentage points for quizzes for 11 students a decrease for 1 student and 2 students had no change. The percentage points for the quizzes are as follows: 3 student's rise of 1, 3 student's rise of 2, 3 student's rise of 3, 2 students rise of 4, 1 student decrease of 1 and 2 students had no change. This table also shows a change in percentage points for tests. The percentage points are as follows: 3 student's rise of 1, 2 student's rise of 2, 2 student's rise of 3, 3 student's rise of 4, 1 student's rise of 5, 1 student rise of 10 and 2 students with no change.

Table 2

*Individual Mean Results For Experimental Group*

Student	Pre-intervention quizzes	Pre-intervention tests	After Intervention quiz	After Intervention test
1	66	61	70	71
2	52	63	62	68
3	71	70	74	74
4	69	67	72	71
5	46	54	59	61
6	61	66	67	70
7	55	65	66	70

Table 2 (continued)

*Individual Mean Results For Experimental Group*

Student	Pre-intervention quizzes	Pre-intervention tests	After Intervention quiz	After Intervention test
8	50	60	50	60
9	71	68	74	73
10	76	70	79	74
11	78	70	80	73
12	63	68	68	71
13	87	76	85	80
14	61	63	66	67
15	66	66	70	71

Table 3

*Individual Mean Results For Control Group*

Student	Pre-intervention quizzes	Pre-intervention tests	Post-intervention quizzes	Post-intervention tests
1	66	62	67	67
2	67	63	70	67
3	71	69	71	70

Table 3

*Individual Mean Results For Control Group*

Student	Pre-intervention quizzes	Pre-intervention tests	Post-intervention quizzes	Post-intervention tests
4	68	67	70	68
5	64	55	67	65
6	61	66	66	69
7	64	65	66	66
8	58	63	62	67
9	69	67	70	70
10	70	69	69	71
11	72	69	72	71
12	66	67	69	67
13	67	67	68	67
14	65	64	68	68

An additional analysis examined the number of students who exceeded a passing level (70%) on quizzes and tests. Table 4 shows the number of students from the experimental group who exceeded the 70% threshold. Table 5 shows the number of students from the control group that exceeded the 70% threshold. The results show that

far more students exceeded the 70% threshold from the experimental group than did students from the control group.

Table 4

*Number Of Students From Experimental Group Exceeding 70%*

Pre-intervention 70% or above	Q1	Q2	Q3	Q4	T1	T2
	5	4	5	4	3	2
Post-intervention below 70%	5	6	8	12	10	9
Difference between pre- and post-intervention	0					

Table 5

*Number Of Students From Control Group Exceeding 70%*

Pre intervention above 70%	Q1	Q2	Q3	Q4	T1	T2
	3	3	4	4	2	1
Post-intervention above 70%	3	3	4	5	4	2
Difference between pre- and post-intervention	0	0	0	+1	+2	+1

In conclusion, the results show the experimental group made a significant improvement on the assessment scores after the intervention was implemented. Although there was a slight improvement for the control group it was not significant. After receiving the results twelve of the fifteen students in the experimental group said they would continue to study on their own time and feel their success was due to the effort of studying. The students in the control group were asked if they detected a connection between studying and academic success. Of the 14 students that served as the control group, 10 said they did see a connection, but only 4 said they would study.

## Chapter 5

This study examined the effects of repeated exposure to academic success following intervention using study activity on learned helplessness on high school age students with special needs. The students in this study were eligible for special education services and display the characteristics of learned helplessness.

Students in the experimental group did have a higher rate of occurrence of success after the intervention phase as a result of study intervention. The expectations for the study were that students who received the study activity intervention would display an increase in scores on assessments of topics cover in class. This exposure to success would aid them in making a connection between their effort and academic success. A statically significant improvement in scores was obtained by the experimental group. Overall, mean scores on quiz and test assessments rose for all but one student whose test scores remained the same. There was a slight improvement for the control group during the intervention phase, although it was not significant.

Many teachers have students that are discouraged, exhibit inappropriate behavior and have low academic achievement. These students feel helpless to the outcome of their learning (Baker, 2008). According to Diener & Dweck (F. Canino 2001), these students that have acquired learned helplessness do not make much effort to learn; they do not persist and may refuse to even attempt the work or simply give up.

Students that are classified as special education report more experience with failure in the classroom than non-classified students. Many students with this pattern of failure acquire “learned helplessness”. This individual internalizes that it cannot control

its environment or outcomes of a situation. Individuals that have developed learned helplessness do not see any correlation between their efforts and success or failure. By the time these students have reached high school, they have experienced failure so much that they believe they cannot be academically successful and they are less motivated and less engaged in the classroom. These students are less likely to reach their fullest potential.

After receiving the results, twelve of the fifteen students in the experimental group said they would continue to study on their own time. They made the connection of effort and academic success as they verbalized they felt their success was due to the effort of studying. The students in the control group were asked if they detected a connection between studying and academic success. Of the 14 students that served as the control group, 10 said they did see a connection but only 4 said they would study.

During the study, all participants who received the intervention did have a greater exposure to success than the students not exposed to the intervention. Continued success is reliant on students studying on their own. The absence of dedicated class time for studying may inhibit some students from participating in this activity. Self-monitoring may be needed to remind students of gains achieved by studying. Continued class study time is recommended until it becomes an automatic response by students.

Over the course of this study, the topics being assessed in class varied. Some topics are generally easier for students to grasp than other topics. Therefore a fluctuation in scores is anticipated. Typically, that fluctuation accounts for the type of difference in scores that was experienced by the control group.

The students in the experimental group experienced the intervention of study activity. Participants of the experimental group experienced higher rates of success following the use of the study activity. After receiving the data, twelve of the fifteen students in the experimental group did say they would continue to study on their own time and feel their success was due to the effort of studying. These students became aware of their efforts as the end result. This is typically not the case with individuals identified with learned helplessness. It is possible that these students will make the connection between effort and success not only in classwork but also in all areas of life.

According to the theory of attribution (Weiner 1974), success and failure are outcomes. Success is obtaining the desired outcome. Students with learned helplessness perceive they have no control over this outcome. They feel they have no control over achieving the desired outcome of success. In addition they typically do not perceive effort as having any impact on the outcome. Among other things, the research by Dweck & Goetz (1978) provided evidence that students that attributed insufficient effort to failure will work harder and longer than those who don't.

As seen in this research, it is possible for students who have acquired learned helplessness to make a connection between their effort and their academic success after the intervention activity that produces exposure to success. The evidence of this is the greater number of students from the experimental group over the control that verbalized they noted a correlation between effort and success rate. Both groups were given the data that displayed a higher rate of success after the effort of studying. Armed with the same data, a higher rate of experimental group students to control group students were able to make the correlation between effort and outcome and an even higher rate were willing to



continue with that effort. This implies that students with learned helplessness may be able to make a correlation between effort and success. That correlation implies students with learned helplessness may have the opportunity of changing their self-image which may in turn break the cycle of failure that drives learned helplessness.

The implication is that the younger a student identifies the correlation between effort and success, the less likely a student will develop learned helplessness. With this information, a priority should be placed on identifying students with learned helplessness. Teachers of these students should make every effort to teach strategies and provide opportunity for more exposure to success in the classroom. Teachers, parents and support staff should encourage the activities that produce success and reward them. They should also aid students in self-monitoring activities that will enable them to come to the conclusion that effort is related to outcome.

Future research should be done in all grades, but especially lower grades. It is possible that, if more students make the connection earlier in their academic experiences between success and effort, less students will acquire learned helplessness.

This study was conducted to determine if students eligible for special education services that display characteristics of learned helplessness would make a connection between their academic success and their effort of studying. If so, would they continue to study on their own time when the intervention period was over. The results indicate that an increase in exposure to success did aid the majority of students in the experimental group in making the connection between their effort and academic success. Twelve of the fifteen students in the experimental group did said they will continue to study on their own time and feel their success was due to the effort of studying.

## References

- Ames, C. & Archer, J. (1988). *Achievement goals in the classroom: Students learning strategies and motivation process.*
- Baker, Amy Ph.D. (2008). *Learned Helplessness in our Students and How We Help.*
- Canino, Frank J. Ph.D. (2001). *Learned-Helplessness Theory: Implications for Research in Learning Disabilities.*
- Draganski, B., Gaser, C., Bush, V., Schuiere, G., Bogdahn, U., & May, A. (2004). *Neuroplasticity: Changes in Grey Matter Induced by Training.*
- Dweck, C.S. & Goetz, T.E. (1978). *Attributions and Learned Helplessness.*
- Elliott, Elaine S.; Dweck, Carol S. (1988). Goals: An Approach to Motivation and Achievement. *Journal of Personality and Social Psychology*, Vol 54(1), Jan 1988, 5-12.
- Feuerstein, R. Falik, L.H., & Feuerstein R.S., (2013)
- Feuerstein, R., Feuerstein R.S, Falik, L.H., & rand, Y. (2006). *The Cognitive Elements of Neural Plasticity.*
- Gotshall, C. & Stefanou, C. (2011). *The effects of on-going consultation For Accommodating Students With Disabilities on Teacher Self-efficacy and learned Helplessness.*
- Hen, M & Goroshit, M. (2012). *Academic Procrastination, Emotional Intelligence, Academic Self-Efficacy, and GPA: A Comparison Between Students With and Without Learning Disabilities.*
- (Luchow, J., Crowl, T & Kahn, J. (2001). *Learned Helplessness: Perceived Effects of Ability and Effort on Academic Performance Among EH and LD/EH Children.*
- McLeod, D.B. (1992). Research on Affect in Mathematics Education: A Reconceptualization in D.A. Grouws (Ed.) *Handbook of research on mathematics teaching and learning.*
- Michelon, P. (2008) *Brain Plasticity: How learning changes your brain.*
- Muller, A. (2005). *Antidote to Learned Helplessness: Empowering Youth through Service.*

- Prochaska, J., DiClemente, C., Norcross, J. (1992) In Search of How People Change: Applications to Addictive Behaviors. *American Psychologist, Vol 47(9), Sep 1992, 1102-1114.*
- Seligman, M.E.P., (1994). *What You Can Change And What You Can't.*
- Skinner, B. F. (1938). *The Behavior Of Organisms: An Experimental Analysis.*
- Spence, I.& Stan-Spence, A (1990). *Meeting "Learned Helplessness" Head on with Active Learning.*
- Weiner, Bernard (1974). *Achievement Motivation And Attribution Theory.*
- Weisenberg, M., Gerber, Y. & Mikulincer, M. (1993). Aerobic Exercise And Chocolate As Means For Reducing Learned Helplessness. *Cognitive therapy and research, vol. 17 No. 6 1993*
- Ylvisaker & Feeney (2002). *Executive Functions, Self-Regulation And Learned Optimism In Pediatric Rehabilitation: A Review And Suggestions For Intervention.*