

**SUCCESS AND FAILURE FOR CHILD DEVELOPMENT STUDENTS IN A  
TECHNICAL COLLEGE**

**by**

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**ABSTRACT**

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Success and Failure for Child Development Students in a Technical College

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The purpose of this study is to determine the correlation between achievement motivation/fear of failure and the difficulty level students select. This will help Technical College teachers to find effective ways to motivate their students and also to expand their perspective to include the possibility that even very fearful and failure prone students can learn to be successful, and that this does not detract from, but can enhance, technical education. This study will revisit the previous studies that were done with young, white, male college students in the 1970's, this time with older, multi-ethnic, female college students. The subjects were 30 Child Development students in a Technical College. They completed two surveys, The Test of Insight (TI) measured the subject's need for achievement (nAch), the Test Anxiety Survey measured their degree of test anxiety. After completion of these two tests, students were grouped in four groups from high to low need for achievement and high to low fear of failure. Then they completed a ring toss game where each subject determined the distance they wanted to stand from the peg. This distance was grouped as to the level of difficulty they selected, easy, moderate, or

difficult. Pearson's Correlation and ANOVA were used to analyze the level of correlation between the two groups as they relate to the distance selected. The results were that there was no statistically significant correlation found, except for a negative correlation between achievement and age.

In conclusion, even if we can't predict the difficulty level a student will choose, we can provide meaningful learning opportunities that will not only be relevant and challenging for adult learners, but they can also be at a level at which the student is likely to succeed.

Teachers must get to know their students so that they are able to address their learning needs, work with their strengths, encourage them, and consider their learning styles.

This paper explored motivation and ways that teachers can help to increase student success. Teachers who emphasize piquing a student's own natural curiosity, helping the student to get interested in meeting an intellectual challenge, viewing the task as a step towards a personal, long-term goal, and/or other intrinsic motivations, not only reduce the fear of failure in students but also increase the success rate because the students are learning for learning's sake, not to avoid failure, punishment, or gain teacher approval.

This paper also compared behaviorist and constructivist teaching, and found that constructivist teaching was becoming more common and clearly more compatible with appropriate learning experiences for adult learners.

Finally, this paper determined if there was a significant correlation between student's fears of failure or need for achievement and the difficulty levels they choose. This study did not find such a correlation, but further research should be done before drawing any strong conclusions in this area.

Key Words: achievement, anxiety, failure, fearful, motivation, success

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## Table of Contents

Chapter One: Introduction .....	6
Statement of Problem .....	9
Null Hypothesis .....	9
Research Questions .....	9
Definitions of Terms .....	10
Assumptions .....	10
Limitations of the Study .....	11
Chapter Two: Review of Literature .....	12
Summary .....	22
Chapter Three: Methodology .....	23
Research Objectives .....	23
Hypothesis .....	23
Participants .....	24
Instrumentation .....	25
Procedure .....	26
Data Analysis .....	27
Chapter Four: Findings/Discussion .....	28
Findings .....	28
Discussion .....	30
Further Research .....	31
Chapter Five: Conclusion .....	34
References .....	35
Appendices .....	37
Appendix A: Consent Form .....	37
Appendix B: Test Anxiety Survey .....	38
Appendix C: Test of Insight Questionnaire .....	41

## **Chapter One: Introduction**

For decades, many teachers and researchers have been searching for the source of motivation that helps some college students become successful while others seem to be more prone to failure and frustration, especially when the failure does not appear to be related to ability. Studies found that we all have certain tendencies. One tendency is the motive to achieve success and another is to avoid failure. (Monte, C. & Lifrieri, F., 1973, Mahone, 1960, Atkinson, 1958) We all have these tendencies to a greater or lesser degree. Whenever a task or performance is being evaluated, people who have a tendency to avoid failure will usually try to avoid it or select a task that is very easy or very difficult. The people who approach success (high need for achievement) are those who like challenge and risk-taking. (Johnson, 1990) They tend to choose activities that have an intermediate level of difficulty.

Based on this evidence, Monte & Lifrieri (1973) believed that 2-year colleges would be seen as less academically challenging and so would appeal to more students who have the tendency to avoid success, or have a higher fear of failure. In an attempt to reduce the chances for students to fail, teachers may reduce the difficulty of the coursework, but then they also greatly decrease the students' chances for meaningful academic achievement or success. Obviously, this would defeat the purpose of attending any college.

These studies were done before 1975 and Technical College (TC) students have changed quite a bit since then, so the studies need to be revisited in light of the new population. Before the 1980's, most TC students were white males, about 19 or 20 years old, learning a trade in hour-based (not credit-based) courses, and they usually completed their

programs in less than one year. At that time, the prevailing learning theory underlying the curriculum and pedagogy was behaviorism (Doolittle & Camp, 1999). Today, enrollment growth rates are high for minorities and females; students over 25, people already in the workforce and going to school part-time, and many technical colleges now offer credit-based courses and 2-year degrees. Technical Colleges also offer advanced certification for people who have already earned one or more college degrees and want to specialize. Constructivism is now beginning to emerge as a desired learning theory.

In 1990, more than 15 Technical Colleges in Minnesota began offering credit-based programs in Early Childhood Education. Most offer a 17-credit certificate, a 35-credit diploma, and a 65-credit A.A.S. degree. The majority of the students in the program are female, their average age is approximately 29 years, and most of them are already working full-time in the field. While many of the students work in a child care setting, some also work for Head Start, Early Childhood Family Education, Early Childhood Special Education, Nursery Schools, Extended Day in public or private elementary schools, Children's Hospitals, etc.

When the students change, the teaching methods often need to be adapted in order to meet the needs of the adult learner. Adult learners bring lifetime experiences that impact their learning and their motivations. According to Fisher (1995), most adults become students voluntarily and they can readily see the usefulness and practicality of the course content. Some of the variables that influence an adult's decision to go to school include: their view of their abilities, their attitude about education, the amount of transition occurring in their life, the level of expectation that education will meet their goals, the access to higher education, and their ability to participate (Cross, 1981). Many adult

students are beginning a new stage in their lives: their children are all in school; they are recently married or divorced; or they are changing their careers. Often times they are working while going to school and many are also parents so they may actually be applying the child development concepts learned in class almost immediately.

Constructivist teachers will often provide self-directed learning opportunities to their students. Self-directed courses have been shown to be highly valued and effective for this type of adult learner. Yet, if studies are correct about achievement and failure, then it would seem reasonable that students who have a high fear of failure may not be good candidates for self-directed learning activities because they would either select activities that are extremely difficult or too easy. According to Billington (1990) & Galbraith (1994), using this method of instruction with the wrong type of students can leave them with a feeling of alienation, lack of self-esteem, or become overwhelmed or intimidated. With this in mind, it would appear that self-directed activities may not only be ineffective, but also possibly harmful when used inappropriately or with the wrong type of student. At the same time, it also seems reasonable that students who choose to go to school (and be evaluated) will have a higher need for achievement than a fear of failure, so self-directed activities could be beneficial.

A review of the literature shows that self-directed learning activities are generally thought of as an effective way to educate adult learners. Studies have also shown that adult learners who test high in fear of failure and low in need for achievement are motivated to select activities that are too easy or too difficult for themselves. Therefore, the research hypothesis for this study is that when provided with an opportunity to be self-directed, persons who are fearful of failure will tend to aspire to activities that do not match their

ability (too easy or too hard), as compared to persons who have a high need for achievement.

### **Statement of Problem**

The purpose of this study is to determine the level of correlation of achievement motivation scores as measured by the Test Anxiety Survey (fear of failure) and the Test of Insight (need for achievement) and the difficulty level selected for a ring toss game as measured by the distance for Child Development students in a Technical College.

### **Null hypothesis**

There is no statistically significant correlation between achievement motivation and selected task difficulty level for Child Development students in a Technical College.

### **Specific Objectives**

The research questions that will be explored are:

1. Are adult learners likely to have a high need for achievement?
2. Are Technical College students likely to be fearful of failure?
3. Is there a racial difference in levels of need for achievement? Fear of failure?
4. Is there an age difference in levels of need for achievement? Fear of failure?
5. Do fearful of failure students tend to select activities that are too easy or too difficult?
6. Do students with a need for achievement tend to select moderately challenging activities?

## **Definition of Terms**

As educational psychologists learn more about how to provide effective and meaningful learning opportunities for adult learners, new terminology emerges. The term “andragogy” was coined to refer to the science of teaching adults. (Knowles, M, 1990)

One of the most common learning experiences for adults is self-directed learning. Self-directed learning is learning activities that are initiated, planned, implemented, and evaluated by the student. “Self-directed” should not be confused with “self-taught”, because the teacher still plays an important, but significantly different, role than in traditional educational settings. “Self-directed” should not be considered an activity done in isolation, either. Studies of self-directed projects noted that on average, students included 10 other people as resources, guides, and consultants, etc. (Cross, 1981). Self-directed learning has the following characteristics; students initiate the learning, determine needs, set goals for learning, select strategies and evaluate learning outcomes. (Knowles, 1975)

Andragogy clearly uses a constructivist approach, as it views the student as constructing his/her own knowledge through meaningful learning experiences. As constructivism increases, behaviorism tends to decline. Behaviorism is an approach that views learning as being controlled by the teacher. The teacher uses positive and/or negative reinforcement to “teach” the student. The student has little or no control over what or how they will learn.

## **Assumptions**

The main assumption being made in this study is that there is a difference between adult learners and non-adult (children and adolescent) learners. Another assumption is that

students in college today are made up of different demographics than in the 1950's, 1960's, and 1970's. A third assumption is that the more a teacher knows about his/her students, the more effective s/he will be in helping the students learn.

### **Limitations of the Study**

There are a few limitations of this study. First, the sample size was very small and homogenous which presented difficulties for finding statistically significant correlations. Second, the location of the study may be significantly different from other Technical College populations, so the results may not be easily replicated. Third, the classifications used to determine levels of achievement and anxiety may have been too subjective, as only one researcher evaluated the subject's responses to determine in which category each of the responses belonged. Fourth, the researcher was unable to find the instruments used in the earlier research, so replication wasn't possible. Although the instruments that were used appear to be very similar, no information was found as to their validity or reliability. Finally, the procedure used during the ring toss may not have been sufficiently goal-oriented, as there was little or no negative or positive reinforcement for successfully throwing the ring on the peg.

This paper will explore motivation and ways that teachers can help to increase student success. It will compare and contrast the differences between behaviorist and constructivist teaching, it will explore the motivation factors involved in learning new things, and it will also determine if there may be a significant correlation between student's fear of failure or need for achievement and the difficulty levels they choose.

## Chapter Two: Review of Literature

Educational psychologists are discovering more about how people learn every day.

There are theories about how the need for achievement and fear of failure develops, how it affects people's performance, how adult learners differ from other types of students, and what teaching methods and roles are most and least effective for each type of student.

While no one has yet discovered a single teaching method that meets the needs of every single student, it is important to know which ones to avoid and which ones to use for particular groups.

How does the need for achievement develop? Atkinson and others (1958) first believed that the achievement motivation was a natural drive similar to hunger, power, and sex, etc. By 1965, Atkinson no longer believed it a drive but conceded that motivation was certainly a necessary ingredient for learning. (Krumboltz, 1965) The tendency to achieve ( $T_s$ ) is determined by three factors, the person's motive ( $M_s$ ) to achieve success (are they interested in it?), their perceived likelihood ( $P_s$ ) that they will be successful, and the incentive value ( $I_s$ ) of being successful (why is it important to them?). ( $T_s = M_s \times P_s \times I_s$ ) People with this tendency enjoy the competition with a standard of excellence and each success brings more positive feelings about future success. When confronted with a challenge, they generally rise to the occasion because of their previous successful experiences and they're ready to take on a new challenge.

It's important to remember, though, that one person's challenge to achieve is another person's threat of failure. The tendency to avoid failure ( $T_{af}$ ) is determined by the flip side of the same coin. Instead of their motive to achieve success, their motive ( $M_{af}$ ) is to avoid failure. They don't look at how likely it is they'll succeed; they look at the

probability ( $P_f$ ) that they will fail. Since these students have a limited perception of the rewards of education (Jay & Blackerby, 1998), they don't have an incentive to succeed, their incentive value ( $I_f$ ) is of failure. So,  $Taf = Maf \times Pf \times If$ . This inhibits their desire to achieve because any performance evaluation causes anxiety and they want to avoid anxiety (Krumboltz, 1965). It is believed that the fear of failure develops through a social learning process of many experiences with failure (Brophy, 1996). Experiencing discrimination/bias, receiving poor instruction, can also cause past "failure" and not feeling a part of the learning community/process, all of which will tend to decrease motivation to learn and increase resistance to education. Brophy states that many students "find it difficult to have their performance monitored in classrooms where failure carries the danger of public humiliation". Fear of failure is believed to be a learned behavior that has the opposite effects on behavior as the need for achievement.

How does fear of failure affect performance? In a study done in 1973, the researchers determined whether or not the student tested high in need for achievement (nAch) or high in fear of failure, and then they asked them to play a ring toss game where the student could decide how far away from the peg to stand before they tossed the ring. (Monte, C. & Lifrieri, F.) The students who had a high need for achievement chose to stand an intermediate distance (10 to 15 feet) from the peg. This distance, while challenging, still gave them a reasonable chance of success. The students who had a high fear of failure either decided to stand very close to or very far from the peg. The researchers concluded that the fear of failure students valued success much less than they valued avoiding failure. If they missed when they stood far away they could reason that hardly anyone would have made it anyway. If they made it while standing close they would reason that

anyone could have done it. Either of these situations was presumed to be much less intimidating and/or embarrassing than the idea of failing at the intermediate level. Many earlier studies had achieved similar results with the ring toss game. (McClelland & Liberman, 1949; Atkinson, 1958) Another study also found similar conclusions when they studied fear of failure as it relates to unrealistic vocational aspiration. (Mahone, 1960) The more fearful of failure and the lower their need for achievement, the more likely a person was to aspire to vocations that were either too easy or too difficult for his/her abilities.

Can anything (or anyone) change a person's fear of failure? Krumboltz (1965) found that some fear of failure might be overcome by using motivators such as a person's natural curiosity, their desire to seek approval, or to comply with authority, etc. While he did not differentiate between the types of motivator, intrinsic or extrinsic, Alfie Kohn (1993), in Punished by Rewards, carefully detailed why extrinsic motivators are ineffective for learning. Instead, teachers need to emphasize intrinsic motivators such as piquing their natural curiosity, helping them to get interested in meeting an intellectual challenge, or viewing the task as a step towards a personal, long-term goal, etc. In other words, learning for their own sake, not just to avoid failing or to gain approval from an authority figure, etc. Krumboltz also determined that "manipulating the strength of expectancy of success was the most feasible means of bringing about changes in achievement motivation". Therefore, teachers shouldn't lower their standards, which Monte & Lifrieri (1973) mentioned, but instead maintain a reasonably high standard of excellence while convincing the students that they can truly achieve it.

Are older, more mature students less prone to achievement anxiety and fear of failure? Some evidence shows that this may be the case. Fisher (1995) and Cook (1993) found that adult learners are different than secondary students or “traditional” college students because they are by nature self-directed, have an acute orientation to learning, and they search for immediate usefulness and application. These forces can “compel individuals to assimilate, synthesize, and internalize new information” in learning situations. Cross (1981) estimated that 70% of adult learning is self-directed, but what about the remaining 30%? If they are more likely to attend a 2-year college, as Monte & Lifrieri (1973) contend, what happens to them when a teacher provides self-directed learning opportunities? As was shown earlier, these students may be more likely to choose a task that will be too easy or too difficult for their level ability and/or standard of excellence. This could continue the cycle of failure, low self-esteem and helplessness, as well as devalue the learning experience itself. The possibility for feelings of alienation, intimidation, and of being overwhelmed will continue to decrease the student’s self-esteem and feelings that they can succeed by their efforts (Billington, 1990 & Galbraith, 1994).

Of course, it’s possible to assign tasks, but that clearly defeats the entire purpose of self-directed learning! Wlodkowski advocates that teachers offer self-directed learning activities as an option, but not mandate them (1999). Brophy (1996) outlined three strategies that can help, without abandoning self-directed activities. They include:

- Attribution Retraining
- Efficacy Training
- Strategy Training

Attribution Retraining deals with the idea that fearful students attribute their failure to their own lack of ability rather than poor time management, lack of effort, or inappropriate learning strategy, etc. Many people, including these students, believe that everyone has a finite amount of intelligence and that there are some things that they just can't do. There are other people who believe that with practice, motivation, and appropriate guidance, most people can learn to do just about anything, and teachers who want to help these students not only need to believe it, but also need to convince the student of it (Dweck & Elliot, 1983). Modeling, socialization, practice, and feedback are all used in Attribution Retraining in order to increase their concentration, coping skills, and a realistic view of their abilities and efforts.

Most, if not all, children are born with a strong sense of efficacy. Take the toddler who has recently learned to walk. The innate drive to be competent moves the child to get up again and again after falling down, even in the face of danger or pain. Somewhere along the way, students who fear failure have gotten the message that they shouldn't even try to do some things. Efficacy Training uses modeling, instruction, and feedback to help the student set realistic goals and remind them that they do have the power to succeed. This method exposes the student to a planned set of achievement-oriented experiences.

The third method described, Strategy Training, is a cognitive skills instruction that teaches problem solving and self-talk to frustrated students. While all these strategies have proven useful, Ames, Kohn, and others include cautions about these interventions. Ames (1987) warns that public feedback and/or social comparison can continue to increase anxiety and fear of failure. Kohn (1993) also asserts that too much emphasis on

grades will not only increase anxiety, but also decrease performance and motivation to succeed.

Providing self-directed, constructivist learning opportunities still appears to be possible and effective, even with students who are fearful of failure, if implemented appropriately.

In fact, many assert that behaviorism, with its stimulus/response, positive and negative reinforcements, reflexive learning mechanisms, and competency-based checklists, are outdated and warrants “re-evaluation” itself (Doolittle & Camp, 1999), especially with the increasing diversity of the college campuses and workforce. Many feel that constructivism is the best way to learn authentically (Kohn, 1993; Branscombe, et al, 2000). Doolittle & Camp (1999) have outlined eight essential factors of constructivist pedagogy that they gleaned from the research. They include:

- 1) Learning should take place in authentic and real-world environments.
- 2) Learning should involve social negotiation and mediation.
- 3) Content and skills should be made relevant to the learner.
- 4) Content and skills should be understood within the framework of the learner’s prior knowledge.
- 5) Students should be assessed formatively, serving to inform future learning experiences.
- 6) Students should be encouraged to become self-regulatory, self-mediated, and self-aware.
- 7) Teachers serve primarily as guides and facilitators of learning, not instructors.
- 8) Teachers should provide for and encourage multiple perspectives and representations of content.

While these are not exclusively constructivist principles, they do fit within the constructivist rationale. Other pro-constructivist authors have developed guidelines for adult learning, as well. Many of these begin with understanding the adult’s motivation to learn. Malcolm Knowles (1984) describes methods for designing self-directed learning that increase motivation, achievement self-awareness, communication, creativity, problem-solving, and confidence. Wlodkowski (1999) describes four conditions that

enhance adult motivation to learn. They are inclusion, attitude, meaning, and competence. He also details five characteristics of a motivating instructor. They are expertise, empathy, enthusiasm, clarity, and cultural responsiveness. K. Patricia Cross, (1981), sees four important requirements of adult curriculum as meaning, appropriate pace, focus, and frequent summarization. Clearly, there is much overlap and common ground in these different perspectives.

A deeper look at Doolittle and Camp's eight guidelines reveals how they can help fearful of failure students to be successful. Authentic, real-world experiences are absolutely vital for adult learners so that they can understand the value in providing these experiences to the children they will teach. Many Early Childhood leaders whole-heartedly embrace this view. Maria Montessori (1967) said, "The development of the hand goes side by side with the development of the intelligence." Jean Piaget, Lev Vygotsky, Bev Bos, Louis Malagozzi, Albert Bandura, and many others have made similar statements. Setting the stage, creating a respectful, inclusive, and interactive climate, and/or providing a safe environment conducive to learning are all common phrases in the research on adult learning (Robinson, 1979; Wlodkowski, 1999). Connecting the learning to an important goal or sense of purpose is very meaningful to adult learners, especially those who need to overcome their tendency to avoid failure.

Social negotiation and mediation is another important element in constructivism.

Individuals often need to adapt to the social requirements of their environment in order to work effectively. Learning teamwork and effectively managing group dynamics can only be done through experience, so opportunities for collaborative learning projects can help the fearful student by realizing that they can contribute to the group and can also be

motivated by the group to do their best. Peer intervention can be seen as less threatening than when the teacher points out concerns. Brookfield (1986) also found that collaborative learning enhances the self-concepts of those involved and resulted in more meaningful and effective learning. He said a combination of autonomous mastery of life with participation in groups provided the greatest satisfaction for the learner.

Relevant content and skills are just as necessary as the authentic, hands-on environment. Students, especially adults, hate “busywork”, rote memorization, drills, etc. Their motivation will plunge if they view their learning activities as meaningless. Cattell’s (1963) research describes two kinds of intelligences, fluid and crystallized. Fluid intelligence is viewed as the ability to memorize facts, react quickly, and do abstract reasoning, etc. and is usually viewed as the kind of intelligence used predominately by youth. Crystallized intelligence is the product of knowledge acquisition and experience. This ability, to apply knowledge, is most common in adults. It is this crystallized, or practical intelligence, which adults not only excel at but also expect to use in their learning experiences.

The content and skills presented must not only be relevant, but also be built upon the learner’s prior knowledge. The learners need to find a place for the new information to “fit” into their existing cognitive structures, which is known as assimilation (Branscombe, et al, 2000). If they can’t make it fit, they can modify the existing structures, which is called accommodation, but if there’s no connection at all to what the person already understands, the information or knowledge we’re trying to build may be irrelevant or misapplied (Wlodkowski, 1999). Knowing the learner’s prior knowledge

also helps the teacher understand the learner's mental structures (Doolittle & Camp, 1999).

Finding out what the learner's knowledge, experience, interests, and concerns are at the beginning of the course is important but this assessment process must also be ongoing throughout the course in order to inform the future learning experiences, especially if students are feeling frustrated or fearful of failure, so appropriate support can be given before it becomes too late. It's important to emphasize to all learners, especially fearful ones, that making mistakes is not a sign of failure, but a learning opportunity. Without mistakes, we wouldn't have the electric light bulb, chocolate chip cookies, penicillin, Ivory Soap, Silly Putty, or Post-it notes! Formative assessment helps detect errors before they become too large and too ingrained to easily change.

The sixth guideline, "Students should be encouraged to become self-regulatory, self-mediated, and self-aware" is a basic tenet of constructivism and it's claim that learners are active in their construction of knowledge and meaning. Today's employers expect employees to not only possess entry-level skills, but also be able to know "how to learn". Therefore, learners need the opportunity to be self-directed in school. They need to be motivated to "learn" even when the teacher, parent, or boss isn't watching or assigning a task. If the learner can see how learning something will help them successfully accomplish their goals, feel competent, and improve their efficiency, they will be more motivated to learn it. These are all intrinsic motivations, which have been shown to be the only way that learning, or real change in behavior, can take place.

The last two guidelines speak specifically of the teacher's role in the learning process. Teachers don't "impart knowledge" to students, but help empower students to discover

knowledge and make it their own. Self-directed learners use strategies such as questioning, observing, researching, reflecting, etc. to build knowledge (Branscombe et al, 2000). Teachers act as guides and resources without directing the learning itself. Their role is to provide opportunities and experiences for the learner to process and acquire knowledge. It is important for teachers to be “constructivist”, to be reflective about their “learning about teaching” and use inquiry-based instruction methods like questioning, observing, researching, etc. in order to model these behaviors for the learners, especially the more resistant ones.

Teachers also need to provide for and encourage multiple perspectives and representations of content, especially in light of the increasingly diverse population they serve. Culture, gender, age, experiences, etc. all influence everyone’s perspective and must be considered in today’s classrooms. If multiple perspectives are not considered, all the previously mentioned conditions such as relevance, inclusion, facilitation of learning, etc. will not exist. In view of Howard Gardner’s Multiple Intelligence Theory (MI), teachers must also provide for multiple ways to represent content and evaluate knowledge and skills. The three main principles of MI are: (1983)

1. Individuals should be encouraged to use their preferred intelligences in learning.
2. Instructional activities should appeal to different forms of intelligence.
3. Assessment of learning should measure multiple forms of intelligence.

Content needs to be presented in a variety of ways and the learners need to be given options for demonstrating what they know. Written and oral reports may not be the most effective way for all students to show what they know. Especially the fearful of failure student who feels they have limited writing ability or feels extremely reluctant to speak in front of the class. Written tests are also very limiting in the learning they can measure.

Frequent examples appear of high functioning employees doing “poorly” in school, but if teachers offer a variety of methods to represent and document learning, more students can be successful. Wlodkowski’s view that teacher empathy enhances motivation reinforces this idea. If teachers truly understand and consider the learners’ perspectives and feelings when adapting instruction, the learner will have increased incentive to learn (1999).

### **Summary**

In summary, while there is still much to learn about adult learners, expanding our own perspective to include the possibility that even very fearful and failure prone students can learn to be successful does not detract from, but can enhance, technical education.

Perhaps that’s what teaching is all about, reaching out to and connecting with the educationally resistant person. L. Tobin (1998) describes this idea as the “the consummate teaching experience, the ultimate challenge to your abilities, the perfection of the teaching art “. Anyone can “teach” the autonomous student, it takes much more effort, dedication, and skill to teach the fearful, resistant student.

## **Chapter Three: Methodology**

### **Research Objectives**

The purpose of this study is to determine the level of correlation of achievement motivation scores as measured by the Test Anxiety Survey (fear of failure) and the Test of Insight (need for achievement) and the difficulty level selected for a ring toss game as measured by the distance for Child Development students in a Technical College.

Previous studies done in the 1960's and 1970's have found a direct correlation, however the population of students has changed a lot since these studies were done, and our knowledge base of adult learning has increased, as well, so it makes sense to see if these findings still hold true.

The specific research questions that were explored are:

7. Are adult learners likely to have a high need for achievement?
8. Are Technical College students likely to be fearful of failure?
9. Is there a racial difference in levels of need for achievement? Fear of failure?
10. Is there an age difference in levels of need for achievement? Fear of failure?
11. Do fearful of failure students tend to select activities that are too easy or too difficult?
12. Do students with a need for achievement tend to select moderately challenging activities?

### **Hypothesis**

A review of the literature shows that students who are fearful of failure tend to select activities that are too easy or too difficult for their ability level. Studies have also shown that students with a high need for achievement select activities that are at an intermediate

level of difficulty. Therefore, the research hypothesis for this study is that students will select the difficulty levels of learning activities according to their motivation to avoid failure or achieve success.

### **Participants**

The participants are 30 female Technical College students drawn from courses in Child Development at St. Paul Technical College (SPTC). SPTC is located in the heart of St. Paul, near downtown and the Capitol grounds. It serves more than 7,400 students each year, 45.2% are female, 18.3% are students of color. SPTC offers more than 50 occupational and associate degree programs in business, deaf education, health and service, technical, trade and industrial education areas. The participants are volunteers from a larger group of approximately 200 Child Development students. Their average age is 30 years, seventeen (57%) are white, seven (23%) black, three (10%) Asian, and three (10%) Hispanic. Six (20%) are married, twenty (67%) are single, three (10%) are divorced and one (3%) is widowed. Twelve (40%) have no children, four (13%) have one child, seven (23%) have two, four (13%) have three and one has four, one has five, and one has six children. This sample is representative of the program as a whole at SPTC, as the average age for the program is 29 years and 40% are students of color. The largest difference in the demographics is that there are no male participants in this study but the previous studies used male subjects. Participation in the study is completely voluntary. Students are assured that no grades would be affected by their participation or non-participation, results will be kept confidential, and after this study is completed, all results will be destroyed and not used for further research.

## **Instrumentation**

Fear of failure is the tendency to avoid activities where the task or performance will be evaluated. This variable is assessed by using two measures; the subject's positive or negative achievement motivation, and the subject's tendency to approach success or to avoid failure. The Test of Insight (TI) is used to determine the student's level of need for achievement (nAch). This test consists of ten statements that describe a characteristic behavior of a person (chosen to suggest achievement) that the students are asked to explain. After they read each description, they must decide what would usually be the reason the person behaves this way. They are also asked to decide what this person is like, what s/he wants to have or do, and what the results of his/her behavior are apt to be. Using the responses each person gives, the researcher determines the amount of achievement imagery in the stories that would indicate the person's tendency towards achievement-oriented activities, or their need for achievement (nAch), using predetermined scoring categories; desire for goal/to avoid failure, goal-directed activity/failure-avoiding activity, qualifications/lack of qualifications for goal attainment, expectations of goal attainment/failure, defensiveness, and positive/negative affect. Each item was given a score of +1 (need for/expectation of achievement) or -1 (fear/expectation of failure). The scores will then be added and a composite score of +2 or higher would show the subject to have a high need for achievement, a score of +1 or lower would mean the subject had a low need for achievement. The original survey used names like Don, Frank, and George, etc. so the names were changed to make them more inclusive and less gender-specific, but otherwise, the test was the same as the original.

The Test Anxiety Survey is the test used to determine the level of anxiety, or their tendency to avoid achievement oriented activities. This test measures the subject's awareness of the extent to which anxiety interferes with the efficiency of his/her performance in achievement-oriented situations. The Test Anxiety Survey consists of eleven items that ask about the student's feelings and attitudes toward taking mid-term and final examinations in general. Subjects are asked to determine where s/he fits on a scale of 1 to 7. A score of 77 represents the highest degree of anxiety.

The final instrument used to measure achievement is a ring toss game, which will be used to analyze the difference between positively and negatively achievement oriented students and the level of difficulty they prefer. The ring toss game asked the student to decide how far away from the peg to stand before they tossed the ring. It is believed that the students who have a high need for achievement will choose to stand an intermediate distance (10 to 12 feet) from the peg. The students who have a high fear of failure will either stand very close or very far from the peg.

### **Procedure**

After the Anxiety Survey and the Test of Insight are completed, students will be ranked in order from high to low need for achievement. Then they will complete the ring toss game and ranked as to the level of difficulty (distance) they selected. The surveys will be completed in a large classroom and everyone will be given the same instructions, at the same time. As each student completes the survey, they will be brought into an adjoining classroom where the ring toss game is set up. There are strips of colored tape on the floor indicating, in one foot increments, the distance from the peg. The tape starts at 1 foot and goes to 20 feet. The students are given three rings and asked to try to get all of them on

the peg. They are able to choose how far away from the peg they want to stand, but once they select a distance, they cannot change the distance. Most students will come in alone, but a few students may finish at the same time, so occasionally two students will watch each other toss the rings.

### **Data Analysis**

When the participants had completed the survey and the ring toss, the researcher went through and gave each subject two scores, one score from the Test of Insight and one score from the Anxiety Survey. For the Test of Insight, +2 or greater meant a high need for achievement because the responses were consistently goal-oriented. For the Anxiety Survey, 4.1 or higher meant a high fear of failure since the responses were consistently on the high anxiety end of the scale (7 being the highest level of anxiety).

The Stout Academic Computing Center analyzed the data, provided by the researcher, using Pearson's Correlation and Analysis of Variance (ANOVA). Pearson's Correlation was used because it is able to determine whether or not there is a statistically significant level of correlation between the two dependent variables (nAch and fear of failure) and one independent variable (distance from the peg). Because of the two dependent variables, need for achievement and fear of failure, ANOVA was then used to analyze the variance on distance. There was no statistically significant correlation found, except for the need for achievement as related to age, which was a negative correlation.

Because the investigator was trying to determine whether or not fear of failure or need for achievement effected the learning choices students would make, the ANOVA and Pearson correlation seemed to be the most effective analysis to use.

## Chapter Four: Findings/Discussion

Although self-directed learning activities are generally thought of as an effective way to educate adult learners, studies have shown that adult learners who test high in fear of failure and low in need for achievement are motivated to select activities that are too easy or too difficult for themselves. Therefore, this study is trying to determine if a correlation exists between motivation (fear of failure or need for achievement) and the difficulty levels a student chooses.

There was no statistically significant correlation between a student's need for achievement or fear of failure and the difficulty level they chose in the ring toss.

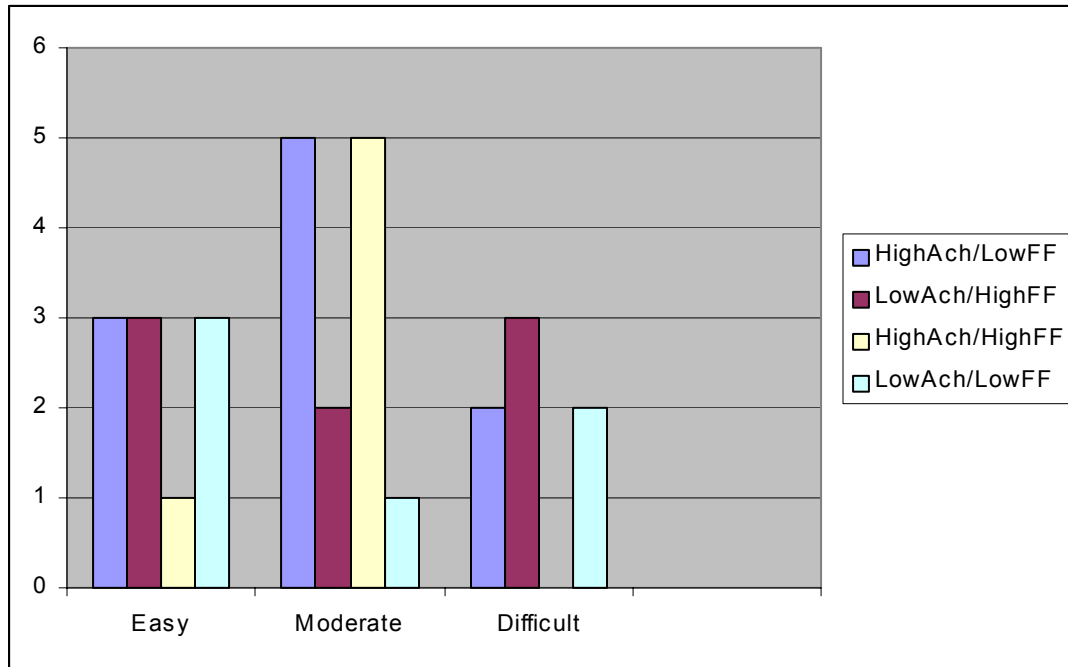
Therefore, the null hypothesis would not be rejected. There was a negative correlation found between achievement and age. The older the student was, the less need for achievement they demonstrated. Table 4.1 shows how many students were in each group:

	LOW Need for Achievement	HIGH Need for Achievement
LOW Fear of Failure	6	10
HIGH Fear of Failure	8	6

**Table 4.1: Student breakdown**

The ten students who fell into the High Achievement and LOW fear of failure category should have been the ones most likely to select a moderately challenging distance (8-10 feet) in the ring toss. The eight students in the Low Achievement and High fear of failure should have been the ones most likely to select very easy or very difficult distances.

Table 4.2 shows the distance the students in each group selected. The two high need for achievement groups were more than twice as likely to select a moderate distance. The two low need for achievement were the most likely groups to select the difficult distance.



**Table 4.2: Distance selected by group**

The results from the specific research questions are:

**Question One:** Are adult learners likely to have a high need for achievement?

Fifty three percent of the subjects had a high need for achievement. This would indicate that adult learners may be slightly more likely to have a higher need for achievement than a fear of failure.

**Question Two:** Are Technical College students likely to be fearful of failure?

The fifty three percent of the subjects that tested at high levels for need for achievement would not indicate that TC students are more likely to have a high level of fear of failure.

**Question Three:** Is there a racial difference in levels of need for achievement? Fear of failure?

There was no racial difference in levels of need for achievement or fear of failure, although none of the Hispanic subjects tested low in fear of failure/anxiety.

**Question Four:** Is there an age difference in levels of need for achievement? Fear of failure?

There was an age difference in levels of need for achievement, the older the student, the lower the level of need for achievement. There was no age difference in fear of failure.

**Question Five:** Do fearful of failure students tend to select activities that are too easy or too difficult?

No correlation was found to be able to predict whether or not fear of failure students would tend to select activities that are too easy or too difficult.

**Question Six:** Do students with a need for achievement tend to select moderately challenging activities?

No correlation was found that would indicate that students with a need for achievement would tend to select moderately challenging activities.

### **Discussion**

The goal of this paper was to revisit the studies done before 1975 to see if the findings still hold true. On the one hand, the investigator was concerned that the literature portrayed community and technical college students as fearful of failure, lacking motivation, and unable to make informed decisions about their abilities. These explanations focused on the difficulty level a student chose when given a variety of options. On the other hand, over the past twelve years of teaching in Technical Colleges, the investigator observed that her students tended to be highly motivated and goal-oriented in spite of their fearfulness and anxiety about being evaluated. Therefore the researcher was interested in understanding her students' motivations and documenting those motivations.

The questions for the study emerged as a result of the Mahone study (1960) and the Atkinson study (1958). The original studies used all males between the ages of 18 and 22. This study's data was gathered from a Technical College program that had a population of 190 females. In addition, this study had 30 subjects whereas the original study assessed 135. Finally, the data for this study was analyzed using the Pearson correlation whereas the original study used a positive discrepancy analysis.

The researcher decided to look at a more characteristic group of technical school students so she selected two child development classes from the Child Development program.

The fact that all the subjects were female may have related to the field of study.

This difference in the participants may explain the fact that this study did not find a significant difference between motivation (fear of failure or need for achievement) and difficulty level selected, whereas the earlier study did. Or, it could indicate that when students mature and gain experience, they are less likely to be motivated simply by extrinsic factors like gaining approval or disapproval from authority figures.

While younger, less experienced students may have a higher fear of failure and a lower need for achievement, adult learners, who choose to go back to school, are already working in the field, and/or have children of their own, tend to be more motivated to succeed than to be anxious about avoiding failure. They can immediately apply the knowledge they're gaining which, as was mentioned earlier, is extremely important to them, so they are motivated to succeed, despite their test anxiety or fear of failure.

### **Further Research**

The question that has come from this study is can a correlation be found between the difficulty levels of learning activities chosen by adult learners and their motivation to

avoid failure or achieve success. If so, why didn't the researcher find one? If not, what can be done to predict student behavior, as it relates to learning activities, in order to help students successfully accomplish their learning goals?

Although this study did not find a significant difference, the researcher believes that further research in the area of adult learning and fear of failure should be done. Research in these areas will inform technical college teachers and teachers of adult learners of strategies that would positively affect student motivation.

Research in the student motivation area will also help teachers in their strategies and approaches to teaching the adult learners. If adult learners aren't influenced by fear of failure or need for achievement, then teachers should find more ways to internally motivate students, yet we can't be sure that they don't influence adult learners since this study has a few limitations. First, since the sample size was very small and homogenous, there was difficulty finding statistically significant correlations. Second, St. Paul Technical College may be significantly different from other Technical College populations, so the results may not be easily replicated. Third, the researcher may have been too subjective in determining which classification the student's responses belonged. Fourth, this wasn't an actual replication since the researcher was unable to find the instruments used in the earlier research. Although the instruments that were used appear to be very similar, no information was found as to their validity or reliability. Finally, since the ring toss wasn't sufficiently goal-oriented, there was little or no negative or positive reinforcement for successfully throwing the ring on the peg.

Given the limitations of this study and the fact that its findings were so different from the earlier studies on adult learners, further research should be done to verify the findings.

Understanding a student's needs is crucial to effectively helping them to be successful. Knowing whether a student has a high need for achievement or a high fear of failure could increase teachers' understanding of the student's needs and behaviors. While no one can really motivate another person, many teachers continue to search for ways to provide opportunities for their students to not only be successful in the classroom, but also at their workplace, as well as in their personal lives. It is also important that they be successful for the sake of the children the students are or will be working with. One of the most important indicators of high quality early childhood settings is the amount of high-quality training that the adults have received. The best way for children to become autonomous and lifelong learners is to have adults in their lives that understand the importance of providing relevant and meaningful learning opportunities where they are actively involved in constructing their own knowledge.

## **Chapter Five: Summary**

This paper explored motivation and ways that teachers can help to increase student success. Teachers who emphasize piquing a student's own natural curiosity, helping the student to get interested in meeting an intellectual challenge, viewing the task as a step towards a personal, long-term goal, and/or other intrinsic motivations, not only reduce the fear of failure in students but also increase the success rate because the students are learning for learning's sake, not to avoid failure, punishment, or gain teacher approval. This paper also compared behaviorist and constructivist teaching, and found that constructivist teaching was becoming more common and clearly more compatible with appropriate learning experiences for adult learners.

Finally, this paper determined if there was a significant correlation between student's fears of failure or need for achievement and the difficulty levels they choose. This study did not find such a correlation, but further research should be done before drawing any strong conclusions in this area.

In conclusion, even if we can't predict the difficulty level a student will choose, we can provide meaningful learning opportunities that will not only be relevant and challenging for adult learners, but they can also be at a level at which the student is likely to succeed. Teachers must get to know their students so that they are able to address their learning needs, work with their strengths, encourage them, and consider their learning styles.

When teachers do these things, their students will be more motivated to learn, more likely to succeed, and ultimately, to truly value their education.

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## **Appendix A: Research Consent Form**

I understand that by returning this questionnaire, I am giving my informed consent as a participating volunteer in this study. I understand the basic nature of the study and agree that any potential risks are exceedingly small. I also understand the potential benefits that might be realized from the successful completion of this study. I am aware that the information is being sought in a specific manner so that no identifiers are needed and so that confidentiality is guaranteed. I realize that I have the right to refuse to participate and that my right to withdraw from participation at any time during the study will be respected with no coercion or prejudice.

NOTE: Questions or concerns about participation in the research or subsequent complaints should be addressed first to the research or research advisor and second to Dr. Ted Knous, Chair, UW-Stout Institutional Review Board for the Protection of Human Subjects in Research, 11 HH, UW-Stout, Menomonie, WI 54751 (715)232-1126.



**SECTION B: Test Survey**

1. Before taking a course examination, to what extent are you aware of an “uneasy” feeling?

1	2	3	4	5	6	7
Am not aware of it at all			Midpoint	Am very much aware of it		

2. When you are taking a course examination, to what extent do you feel that your emotional reactions interfere with or lower your performance?

1	2	3	4	5	6	7
Do not interfere with it at all			Midpoint	Interfere a great deal		

3. If you know that you are going to take a course examination, how do you feel beforehand?

1	2	3	4	5	6	7
Feel very confident			Midpoint	Feel very unconfident		

4. After you have taken a course examination, how confident do you feel that you have done your best?

1	2	3	4	5	6	7
Feel very confident			Midpoint	Feel very unconfident		

5. While taking a course examination, to what extent do you experience an accelerated heartbeat?

1	2	3	4	5	6	7
Heartbeat does not accelerate at all			Midpoint	Heartbeat noticeably accelerated		

6. Before taking a course examination, to what extent do you experience an accelerated heartbeat?

1	2	3	4	5	6	7
Heartbeat does not accelerate at all			Midpoint	Heartbeat noticeably accelerated		

7. While taking a course examination, to what extent to you worry?

1	2	3	4	5	6	7
Worry not at all			Midpoint	Worry a lot		

8. Before taking a course examination, to what extent to you worry?

1	2	3	4	5	6	7
Worry not at all			Midpoint	Worry a lot		

9. While taking a course examination, to what extent do you perspire?

1	2	3	4	5	6	7
Never perspire			Midpoint	Perspire a lot		

10. Before taking a course examination, to what extent do you perspire?

1	2	3	4	5	6	7
Never perspire			Midpoint	Perspire a lot		

11. When, in your opinion, you feel well prepared for a course examination, how do you usually feel just before the examination?

1	2	3	4	5	6	7
Confident			Midpoint	Anxious		

### **Appendix C: Test of Insight Questionnaire**

**Directions:** This is a test of your understanding of the reasons why people behave as they do. You will be given a characteristic behavior of each of a number of people. Your task is to explain why each person behaves as s/he does. Read each description and then decide what you think would usually be the reason why a person does what this one does. Decide what this person is like, what s/he wants to have or do, and what the results of his/her behavior are apt to be. Write your explanation in the spaces provided. If you think of more than one explanation, give the one you think is most important.

Thank you for agreeing to do this!

1. Dave always lets the “other fellow” win.

2. Connie feels upset whenever anyone is criticizing or blaming her.

3. Mel enjoys organizing groups and committees.

4. Jose is always willing to listen.

5. Yancy would rather follow than lead.

6. Leslie never joins clubs or social groups.

7. Jamie can always be depended on for a loan.

8. Terry is always trying something new.

9. Jesse said, “They probably won’t ask me to go with them.”

10. Taylor said, “I’m pretty sure I can do it.”