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Achievement goals affect academic success and help seeking behavior of undergraduates

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The purpose of this study is to determine how achievement goals effect students' academic success and help seeking behavior. The three goal orientations measured in this present study are mastery, performance-approach, and work avoidance. A questionnaire is used to assess the students' goal orientation. The researcher also asked the students to self report their current cumulative GPA and the number of times a semester they visit their professors for help. One way ANOVAs were used to determine which achievement goal had the highest GPA and which had the most help seeking behavior. A correlation was also done to determine if GPA and help seeking behavior correlate. The total number of participants is n=65. The researcher found that students with performance-approach goals had significantly higher GPAs than mastery goals and work avoidance goals. The results also showed that mastery goals had significantly higher help-seeking behavior than work avoidance goals, but not performance-approach goals. No correlation was found between GPA and help seeking behavior. The implications of this study are vast for the education field. Professors should be aware that students who seek help do not in turn get better grades. Reasons for this should be looked at in further research.
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Chapter I – The Problem

Need

Achievement goals of students are very important in understanding the success and motivation of students. Goals are very significant in the educational setting. Students can have all different types of goals. Goals can affect grades, interest, motivation, and help seeking behavior, along with a wide variety of other things. It is important for professors and other educators to be aware of the presence of achievement goals in their students. They should also be aware of the effects of achievement goals and what they can predict about their students. Achievement goal theory is an interesting area of research and can have many implications in the education field. Help seeking behavior is also very important to research because educators should be aware of who seeks help and who does not. The relationship between help seeking behavior and academic success is also important. If help seeking does not have a positive effect on academic success then educators should discuss the possible reasons for this.

Purpose

The purpose of this study is to see if achievement goals effect students’ academic success and help seeking behavior. This study will look at three achievement goals; mastery, performance-approach, and work avoidance to see which goal orientation has the highest academic success and which has the most help seeking behavior. The researcher will also determine the relationship between academic success and help seeking behavior.
Hypotheses

In this study achievement goals of college students will be measured. The three goals that the students could possibly have are mastery, performance-approach, and work avoidance goals. An achievement goal questionnaire will be used to measure the goals and determine which goals the students possess. The college students’ GPAs and help seeking behavior will also be measured. The research will look at the effects that achievement goals have on help seeking behavior and GPA. Also the relationship between help seeking behavior and GPA will be discussed in this current study.

The hypotheses of this study are performance-approach goals will predict higher academic success than mastery goals. Mastery goals will predict higher help seeking behavior than performance-approach goals. Work avoidance goals will have a negative effect on both academic success and help seeking behavior. Lastly, help seeking behavior will have no effect on academic success. The independent variable is achievement goal orientation divided into three levels; mastery, performance-approach, and work avoidance. The dependent variables are academic success and help seeking behavior.

Theory/Background

Goal theory is a key component to understanding motivation and academic performance. According to Pervin (2003) individuals adopt different goals for different reasons. A goal is a reason that a person does something. Achievement goal theory is a branch of goal theory related to education. It is one of the most prominent motivational
theories in current research. (Linnebrink & Pintrich, 2003, p. 320). “Achievement goals are commonly defined as the purpose of task engagement and the specific type of goal adopted is positive to create a framework for how individual interpret and experience achievement settings.” (Elliot, 1999, p. 169).

Achievement goals are divided into mastery and performance goals. Anderman, Austin, and Johnson (2002) define a mastery goal as when a student is doing the school work out of an interest in the course material and an internal enjoyment. Performance goals are defined as doing school work to obtain the high grade. Students with performance goals are interested in looking smart compared to others. Work avoidance goals are related to doing as little work as possible. The students do the least amount of work to get by in the class. They do not care about succeeding or mastering the material.

It is important to understand goals and how people are motivated by them. Motivational psychology discusses the differences between intrinsic and extrinsic motivation. The difference is that students who are intrinsically motivated desire to learn within themselves, while extrinsically motivated students want to receive high GPAs or another type of reward for learning. The adoption of achievement goals is inline with motivational psychology. Students who have performance-approach goals are extrinsically motivated, while students with mastery goals are intrinsically motivated.

It is very important for schools to understand goal theory and the implications in the educational sense. School personnel should strive to have students that want to learn and students that achieve high grades. Achievement goal theory understands that students can and do adopt goals that the classroom environment encourages. This has led to more students having performance goals because most educational setting fosters this
type of goal. Because of the many implications of achievement goals it has been in many
research studies. However, these studies are broad and the researchers are divided on
which goals are most beneficial for students to have. Mastery goals seem to be better
because the students are mastering the material and enjoy learning. However,
performance goals are good because the students are obtaining higher grades which are
more valued in society. Currently, a multiple goal perspective is being researched, which
supports the idea that it may be in the best interest of the students to be able to adopt
more than one achievement goal for optimal learning.

Definition of Terms

A goal is defined as an objective that someone wants to reach. Performance-
approach goals are defined as achieving to demonstrate ability compared to others. He or
she wants to outperform others. Mastery goals are defined as achieving to develop ability
and master the course material. Work avoidance goals are defined as doing as little work
as possible in a class. Academic success is defined as cumulative GPA. Help seeking
behavior is defined as the number of visits to a professor’s office hours in a given
semester.

Assumptions

The researcher is assuming that the achievement goal items questionnaire
accurately measure achievement goals. The researcher assumes that the participants are
taking the questionnaires seriously and are answering truthfully to the best of their ability.
The researcher assumes that if the questionnaires are given at different times and in
different classrooms, then the environment of all the times is considered equal. Also the data entry and scoring of the scales will be accurate.

Limitations

The study can only be generalized to undergraduate students. In this study achievement goals are only looked at in the educational setting and so cannot be generalized to other setting such as business fields. The sample size can also be considered a limitation. Ideally at least 100 subjects should have been studied. However, the lack of turn out for the subject pool created a problem for the researcher. The research had to resort to asking friends and other students to participate to reach 65 subjects.

Another limitation arose when the researcher was scoring the goal questionnaire. A few of the students had high scores on both the mastery and performance goal orientation questions. No subject had the same number on both, so the highest number was chosen to keep with the integrity of the rest of the study. However, a scale that can determine when a student has more than one goal orientation needs to be developed for further more detailed research.

Summary

Chapter two will be a review of research that has been done on achievement goals, goal theory, and help seeking behavior. Many studies have looked at achievement goals and what they can predict. The researcher will do an extensive written review of this literature. Chapter three will be the design of this present study. Chapter four will be
the data collection process and analysis of the data. The researcher will conduct the research at Rowan University with undergraduate students as the participants. Finally, chapter five will be the conclusion of this research study.
Chapter II – Literature Review

Introduction

This chapter will review empirical research done on achievement goals and help-seeking behavior. First studies dealing with the break up of achievement goals into mastery and performance will be discussed. Following that the division between approach and avoidance motivation will be examined. The research on help seeking behavior related to achievement goals will then be explored. Interest and performance outcomes of achievement goals will be laid out next. Then intrinsic motivation and how it relates to achievement goals will be talked about. The multiple goal theory perspective will then be introduced. The last topic will be other studies that show what goals can predict in the education setting. Finally, a conclusion of all the findings will be stated.

Mastery and Performance Goals

Achievement goal theory is one of the most researched motivational theories. This theory has to do with what motivates people to learn in an educational setting. “Motivation is a dynamic, multifaceted concept and students are motivated in multiple ways.” (Linnenbrink & Pintrich, 2002, p. 313). Researchers have debated goal theory and how to define the different types of goals for years. According to Linnenbrink and Pintrich (2002) achievement goal theory has two primary goals. Goals are defined as the reasons for learning. The two types are mastery and performance. Mastery goals are when the focus of learning is about really understanding and mastering the material. On the other hand, performance goals are when the focus of learning is on ability or competence, related to others. These two goals are linked to different behavioral,
cognitive, and affective outcomes. Many researchers have conducted studies using achievement goal theory.

Elliott and Dweck (1988) did a study on achievement goals and perceptions of current ability. They predicted that performance goals will lead to helplessness in the face of failure and learning goals, which are the same as mastery, will lead to a mastery-orientation response to obstacles. The mastery-orientation response is when the student seeks to completely understand the material. The participants were put into four groups in this study. The students were randomly assigned to either a mastery learning task or a performance task. Also the students were in either a high or low competency feedback condition.

The researchers found that goals are helpful in understanding achievement patterns. The hypotheses of the study were supported. Students with performance goals when faced with difficult problems developed helplessness. On the other hand, students with learning goals when faced with difficult problems did all they could to master and accomplish the problems.

In another study of achievement goal theory Grant and Dweck (2003) used a goal inventory as their measurement. The researchers found that learning or mastery goals have a positive effect on both intrinsic motivation and performance. Also better coping methods, planning, and persistence were linked to mastery goals. Performance goals have a positive effect on performance, but a negative effect when faced with a setback. In addition, performance goals were linked to fear of failure and more test anxiety. This study did talk about the fact that when faced with success performance goals were
beneficial because as a result of the success the student did not encounter some of the other negative outcomes.

Wolters (2004) looked at the outcomes of persistence, procrastination, choice, cognitive learning strategies, and mathematic grades based on achievement goals. The researcher used a self-report inventory that measured perceived classroom environment, personal goals, and the collection of outcomes. The results indicated that mastery goals were related to positive outcomes in all areas. The results for performance goals were less uniform. The implication of the study is that performance goals did have a few positive outcomes and so should be looked at in further research.

Bandalos, Finney, and Geske (2003) looked at study strategies, test anxiety, and self-efficacy. The researchers used a goal inventory and a self-report scale to collect the data. They found that mastery goals lead to deep-processing strategies; high self-efficacy, and low test anxiety. Performance goals lead to disorganized study strategies, lower self-efficacy, and higher test anxiety. This study continues to support the view that mastery goals lead to more positive outcomes. Meece and Holt (1993) also found that students with mastery goal orientations had the most positive achievement profile. While, students with performance goals had the most negative achievement profile.

Approach and Avoidance Goals

Achievement goal theory then broke into approach and avoidance motivation for performance goals. Elliot and Church (1997) assessed mastery, performance-approach, and performance-avoidance goals of college students. Performance-approach was defined as wanting to outperform others, while performance-avoidance was defined as
wanting to not perform last. The researchers conducted a study where they assessed their students using self-report scales over the course of a semester. The researchers found that mastery goals led to high competence, performance-avoidance goals led to fear of failure and low competence, and performance-approach led to fear of failure and high competence. From this study achievement goal theory later broke into approach motivation and avoidance motivation for mastery goals.

Approach motivation according to Elliot (1999) is defined as behavior directed by a positive event, while avoidance motivation is a behavior directed by a negative event. The two goals mastery and performance were then looked at through these two new types of motivation. This led to mastery-approach, mastery-avoidance, performance-approach, and performance-avoidance goals. Mastery-approach goals are when the student strives to mastery the skills, while mastery-avoidance is when the student strives to not look incompetent in their skills. Performance-approach goals are when the student strives to outperform others, while performance-avoidance is when students strive to not perform last. This distinction was a huge progress in motivational psychology and achievement goal theory. More research studies came as a result, which made use of these four goal types.

Elliot and Trash (2002) did a study that looked at approach-avoidance motivation related to personality dimensions. They used self-report scales to collect the data from the participants. The researchers found that students who have approach motivation had high levels of extraversion and positive emotionality. Students with avoidance motivation had high levels of neuroticism and negative emotionality. The research supports the idea that personality traits factor into what motivated students to learn.
Elliot and McGregor (2001) used an achievement goal questionnaire to measure the goal orientation of the participants. They found that mastery-approach led to the most positive outcomes such as self-determination, work mastery, and perceived classroom engagement. Performance-approach goals led to fear of failure, competitiveness, and a need for achievement. Mastery-avoidance goals lead to fear of failure, lower self-determination, and test anxiety. Performance-avoidance goals lead to fear of failure, lower self-determination, and surface level processing.

Elliot and Sheldon (1997) conducted a meta-analysis of studies discussing avoidance motivation. They collected studies that examined the negative outcomes of avoidance motivation. The results of their research showed that avoidance motivation leads to negative outcomes, lower competence levels, lower grade, and higher help seeking avoidance. The fear of failure was also linked to avoidance goal. Students who are afraid to fail often adopt avoidance goals as a method of self-handicapping. That way when they do fail, the students can blame it on their lack of trying instead of their low ability or own failure. These findings support the belief that approach motivation is better than avoidance motivation. A student will have a much better chance at succeeding in class when the reason he or she is doing the work is to obtain something rather than avoid it.

Help Seeking Behavior

Help seeking is when a student asks for help on a given assignment, test, or on the course content in general. Students either engage in positive help seeking behavior or avoid it. Students should seek help from professors when needed. However, many
students avoid help seeking. Achievement goals play into the students’ decision to help seek. It is important for professionals in educational settings to be aware of who help seeks and who does not.

Karabenick conducted research which looked at help seeking behavior and achievement goal structure using self-report inventories. According to Karabenick (2004) mastery goals positively predicted help seeking approach and negatively predicted help seeking avoidance. This means that students who possess mastery goals are more likely to engage in help seeking behavior when needed. Perceived classroom environments were also looked at in this study. The results showed that classes with more of a performance-avoidance environment lead to higher levels of help seeking avoidance patterns.

Prior to this research Karabenick (2003) found that students who report being threatened by help seeking do not engage in the behavior. The students were in a large college lecture hall. They reported being just as threatened approaching the professor as well as a fellow student or teaching assistant. The researcher also found that students with mastery goal orientations were more likely to engage in help seeking. Performance goal students were less likely to help seek. The reason for this is thought that students who are concerned about doing well compared to others are also more threatened by asking for help because to them it shows a lack of ability.

Ryan, Patrick, and Shim (2005) did a study with surveys that looked at the achievement of students related to help seeking behavior. They found that students who engaged in appropriate help seeking patterns were higher achievers and had greater gains in their academic success. Students who had average help seeking behaviors were the
next highest achievers. Students who avoided help seeking tended to be the lowest academic performers. This article does show that it is maladaptive to avoid help seeking. Students who help seek when they need help do better academically according to this study. The study does contradict other research that found that performance goals lead to higher performance and lower help seeking behavior.

Elementary school children were also studied to see the effects of achievement goals on help seeking behavior. Similar results to the studies done on college students were found. Newman (1998) did a study which put children in either learning or performance environments to see which group would help seek more. The researcher found that the students who were in the learning or mastery environment were much likely to seek assistants then the performance environment group. This supports the idea that the learning environment along with the individual achievement goals of students is important in help seeking behavior.

Ryan and Pintrich (1997) conducted a study on middle school children, which looked at how different motivational characteristics of adolescents influence their personal help seeking behavior. They defined avoidance of help seeking as not asking for help when it is clearly needed and adaptive help seeking as asking for clarification or an example to help them solve the problem. The results showed that perceived competence and achievement goals are important factors in help seeking. Students who were unsure of their own competence were more likely to avoid help seeking. Students who were surer of their own competence and had mastery goal orientations were more likely to have adaptive help seeking behavior. This study adds to the growing research on the influence of motivational factors on help seeking behavior.
In addition to the characteristics of the classroom individual self-efficacy was measured to determine help seeking behavior. Ryan, Gheen, and Midgley (1998) define self-efficacy as students’ judgments on their ability to do schoolwork successfully. The researchers looked at classroom structure and self-efficacy of students to see who avoids help and who asks for it. The results of this study showed that students low in self-efficacy were more avoidant in help seeking, while students high in self-efficacy were more willing to ask for help. Also this study supported previous research that a mastery learning environment is more conducive to help seeking behavior.

Turner et al. (2002) also did a study on classroom environment and help avoidance reports. The researchers examined the goals for achievement that are encouraged in the classroom and the instructional pattern and how they related to help avoidance. Mastery goals and performance goals were the two goals used in this study. The instructional patterns were defined as either supportive or nonsupportive. The concept of self-handicapping is also used in this study. The results showed that less avoidance behavior was found in a supportive classroom environment and more avoidance behavior was found in a nonsupportive classroom environment. However, this study discovered that contrary to predictions performance goals were not related to higher reports of avoidance patterns.

Butler conducted two studies on the effects of task and ego achievement goals on help seeking and information seeking behavior. Butler (1993) had college students engage in a task that was either task/mastery oriented or an ego/performance oriented task. The students were also given the option to request assistance. The results support
other research findings that students in the task oriented group were more likely to ask for help than the ego oriented group.

Bulter and Neuman (1995) looked further into help seeking and attitudes of help seeking. They found that children who were mastery oriented did help seek more. However, if they did not help seek the students felt it was because the person wanted to strive for independent mastery learning and so did not see it as a negative avoidance of help. In the ego or performance condition the students help seek less. However, they thought the attitude of ego oriented students towards not help seeking was due to a fear of looking incompetent in front of other students in the class.

Interest and Performance

Achievement goals can lead to interest and performance. Interest in a subject and performing well in the class are two very important factors in education. Which achievement goals lead to which outcome has been a popular field of research. It is important to know which goals lead to which outcomes and which is more adaptive for students to have. Do teachers want students who perform well or who are mastering the material? Harackiewicz, Barron, Carter, Lehto, and Elliot (1997) looked at this question. The study was designed to look at what personality characteristics lead to which goals and what the outcomes are. The researchers predicted that “mastery goals would have more positive effects on intrinsic interest than performance goals, but that performance goals would have more positive effects on graded performance than mastery goals.” (Harackiewicz et al. 1997, p. 1286). The researchers used an achievement goal questionnaire along with open-ended responses to test their hypothesis. The results
supported this hypothesis. The researchers were disappointed to find that mastery goals did not lead to higher grades. As professors they want their students who are mastering the material and highly interested to also be getting higher grades.

Harackiewicz, Barron, Carter, Lehto, and Elliot (2000) examined the short-term and long-term consequences of achievement goals. The hypothesis of this study is that mastery goals in an introductory psychology course will predict interest and future enrollment in psychology course. On the other hand, performance goals will predict higher grades in the course and higher grades throughout the students’ college career. The researchers surveyed a class throughout the semester and obtained the students’ grades and course listings three semesters later. The hypothesis was supported by the results. The mastery goal students were more likely to be enrolled in psychology courses three semesters later. The performance goal students were more likely to have higher grades three semesters later.

Harackiewicz, Barron, Tauer, and Elliot (2002) then examined college students through their entire college experience. They conducted a longitudinal study that assessed the achievement goals, interest, and performance from freshman year through graduation. This study also found that mastery goals predict interest throughout college and performance goals predict higher grades. The researchers feel these results are a case for multiple goal perspective, which will be discussed in another section. This study then led to Barron and Harackiewicz (2003) exploring the benefit of performance-approach goals in the college classroom.

This study decided to look at senior seminar psychology students in a class where mastery goals were stressed and encouraged more. Similar inventories from their past
research were utilized. The same results were found that performance goals led to higher grades and mastery goals led to interest. The researchers feel that both goals have positive outcomes. The researchers feel that “different achievement goals may be better suited for different types of situations, and students who can selectively shift between goals depending on the situation may be particularly advantaged.” (Barron & Harackiewicz, 2003, p. 369).

Yperen (2003) found that performance goals do undermine interest in the course material. However, other studies show that performance goals can be good. It is important to know when performance goals are adaptive and for whom they will be the most advantageous. Midley, Kaplan, and Middleton (2001) reviewed the literature on interest and performance related to achievement goals. The researchers came to the conclusion that, yes performance goals can be beneficial. However, at what cost? Many maladaptive outcomes such as self-handicapping, avoidance of help-seeking, the use of cheating, and reluctance to cooperate with peers are all possible outcomes of students who possess performance goals.

Intrinsic Motivation

Intrinsic motivation is when a person is motivated to learn based on an internal desire. Intrinsic motivation is highly correlated with mastery goal orientation. Rawsthorne and Elliot (1999) conducted a meta-analysis of research that looks at the effects of achievement goals on intrinsic motivation. They found that performance goals undermine intrinsic motivation.
On the other hand, Harackiewicz and Elliot (1993) discovered that achievement goals do not differentially affect intrinsic motivation. These conflicting results add to the controversial issue of achievement goal outcomes. There are many different views on which achievement goal is more advantageous. The research is divided; however, mastery goals seem to have more positive outcomes.

Durik and Harackiewicz (2003) found that students who were high in achievement motivation and adopted performance goals did have intrinsic interest and motivation in the task. Students low in achievement motivation did not have intrinsic motivation. This study showed that intrinsic motivation is related to achievement motivation, not just which achievement goal orientation the students possess.

Lepper, Corpus, and Iyengar (2005) found that extrinsic interest does lead to lower achievement in elementary students. Xiang, Chen, and Bruene (2005) showed that intrinsic motivation leads to longer lasting interest. The two studies support the notion that is better for students to have intrinsic motivation in school.

Multiple Goal Perspective

There currently exists a debate between researchers as to which goal orientation is the most adaptive. A new perspective is now being looked at called the multiple goal perspective. This view believes that students who adopt more than one goal have the advantage. These students understand when a certain goal is better in a given situation. They are able to switch between goals based on the environment they are in. Research studies have been done which support this new perspective.
“Given the positive patterns found for the separate main effects of mastery goals and approach performance goals, it could be predicted from a revised goal theory perspective that having high levels of both of these goals would be the most adaptive.” (Pintrich, 2000, p. 545). Pintrich (2002) did a study that found that high performance-approach goals when paired with high mastery goals do not reduce the general positive effect of high mastery goal outcomes. Students who wanted to master the material and performance above others had just as many positive outcomes as those with only a mastery goal orientation. This is evidence that supports the positive advantages of adopting a multiple goal perspective.

Linnenbrink (2005) conducted a study to see which classroom goal context; mastery, performance-approach, or a combination of both, is the most adaptive. The researcher found that mastery goals had the most positive outcomes. However, a dual emphasis on mastery and performance-approach goals is beneficial for help seeking and achievement.

Harackiewicz, Barron, and Elliot (1998) conducted a meta-analysis of studies which looked at the multiple goal perspective. They conclude that performance goals do have positive effects that complement the positive effects of mastery goals. Barron and Harackiewicz (2001) found that students are better off when they adopt mastery goals along with, instead of in place of, performance goals. The studies support the growing debate of the multiple goal perspective. Harackiewicz, Barron, Pintrich, Elliot, and Thrash (2002) in their review of the multiple goal perspective state that a revision of goal theory is underway that will endorse this new perspective.
Goals and other Educational Outcomes

In addition to interest, performance, and help seeking behavior achievement goals have predicted other factors and outcomes in the educational setting. Study strategies are one such factor that relates to achievement goals. Elliot, Holly, and Gable (1999) did a study that looked at which achievement goals had which type of study strategy. The results showed that mastery goals predicted deep processing, persistence, and effect in studying. Performance-approach goals predicted surface processing, persistence, effort, and exam performance. Lastly, avoidance goals predicted surface processing, disorganization in studying, and lower exam performance.

Achievement goals can also effect how the student processes information prior to task engagement. McGregor and Elliot (2002) found that mastery goals led to more positive preparation and adsorption of material prior to the task. Performance-approach goals led to high grade aspirations prior to the task, while avoidance goals led to higher levels of test anxiety and feelings of threat.

The classroom environment also plays a part in achievement goal adoption for students. The classroom environment that is more engaging and discussion oriented tends to led to more mastery goal oriented students. Classrooms that are largely lecture based and where the students are evaluated on multiple choice exams tends to promote performance-approach goal oriented students. (Ames & Archer, 1988; Church, Elliot, & Gable, 2001; Urdan, 2004).

Senko and Harackiewicz (2005) conducted a study that looked at the role of competence feedback on achievement goals. The researchers found that students who are mastery goal oriented, but receive a low grade will often pursue performance goals to
increase their grades. The study supports the idea that students do respond to feedback and can change achievement goals as a result. Porter (2005) conducted a study using goals and commitment to teams. The researcher found that people with mastery learning goals tended to have more commitment to teams and teamwork than people with performance goals.

Test anxiety was found to be positively related to avoidance and performance goals and negatively related to mastery goals. Help seeking behavior was also shown to be negatively related to avoidance and performance goals and positively related to mastery goals. (Elliot & McGregor, 1999; Middleton & Midgley, 1997). Morris, Brooks, and May (2003) found that college students with mastery goal orientations had more positive coping styles when faced with a stressful situation than students with performance goal orientations.

Conclusion

Research on achievement goals is very vast and has some controversy. Overall, mastery goals seem to have more positive outcomes. Mastery goals are linked to interest, deep processing, lower levels of test anxiety, and higher levels of help seeking behavior. Performance goals are linked to higher grades, surface level processing, higher test anxiety, and higher help seeking avoidance. Avoidance goals are linked to fear of failure, higher test anxiety, lower interest, graded performance, and higher help seeking avoidance. In most cases mastery goals seem to be the best goal orientation to adopt. However, when it comes to the large lecture classes in college performance goals may work more in the students’ favor. These finding led to the multiple goal perspective.
The multiple goal perspective supports the idea that a student who can adopt both mastery and performance goals are at an advantage. Avoidance goals virtually never lead to positive outcomes. Students should strive to have interest in what they are learning, perform well, and help seek when necessary, to be the most productive and successful student.
Chapter III – Design

Participants

Rowan University undergraduate students volunteered to participant in this research study. The students were recruited through the psychology department subject pool and through friends of the researcher. Rowan University undergraduates who take the introductory psychology course are required to participating in research studies for course credit. This study was one of the options for the undergraduates to participating in. They were recruited through the subject pool sign up sheet located in the psychology department at Rowan University. When the students signed up they were told to go to a room at a certain time to participate in this research study. 40 participants were recruited in this manner.

The rest of the participants were recruited through friends to get a large enough sample size of 65 total students. The students were in any of the four undergraduate grade levels and both males and females. There were 29 males and 36 females. There were 21 freshmen, 18 sophomores, 13 juniors, and 13 seniors. The age range was 18-41, with the mean age being 21. The subjects in this study are considered a random sample of the Rowan University undergraduate population.

Materials

An achievement goal questionnaire originally designed by Elliot and later adopted by Barron and Harackiewicz was given to the students. It is a 10-item questionnaire designed to measure students' achievement goal orientation. A demographics survey designed by the current researcher was used. An informed consent and debriefing sheet
were also used. See Appendix A for exact materials. The achievement goal questionnaire used is a reliable and valid measure. It has been successful used in previous research. It is a 10-item questionnaire which measures the student’s achievement goals through self-report measures. There are three achievement goals; mastery, performance-approach, and work avoidance that the scale measures.

Four items are mastery, three items are performance-approach, and three are work avoidance items. Participants indicate how they agree or disagree with each item using a 7 point Likert Scale with 1 (completely disagree) to 7 (completely agree). The researcher scored the scale by averaging the scores for each goal group. The goal with the highest average is the goal that the student possesses.

The achievement goal scale used in this current research study was used in Barron and Harackiewicz’s 2003 study. According to Barron and Harackiewicz (2003) students filled out the achievement goal questionnaire to the extent they were pursuing mastery (Cronbach’s alpha = .90), performance-approach (Cronbach’s alpha = .81), or work avoidance (Cronbach’s alpha = .81) goals for their capstone class. The scale was adopted from earlier measures that were successfully used in past research (Harackiewicz et al, 1997, 2000). (p. 362). This indicates that the scales have internal-consistency reliability. This means that the questions that measure mastery goals, performance-approach goals, and work avoidance goals are consistent with each other.

The questionnaire also has validity and is accurately measuring achievement goals. It has been successfully used in many studies. One such study had the participants fill out the questionnaire and also later had the subjects fill out an open-ended question on
their achievement goals to see if the scale outcome matched up with the open-ended answer, which it did. (Harackiewicz et al. 1997).

The demographics sheet asks for the participants to fill out their gender, undergraduate academic level, age, GPA, and the number of times the student on average visits their professors' office hours. This demographic sheet had the participants circle the gender and academic level. The participants filled in their age, their current cumulative GPA, and the number of office hour visits. The question “What grade do you except to get in this course?” is a filler question and will not be used in the current research study.

Procedure

First the participants were welcomed to the study. They were then asked to read an informed consent and sign it. This form gives a brief description of the study and explains the confidentiality procedure. It also lets the subjects know that they can withdraw at any time without losing the credit. Next, the achievement goal questionnaire was passed out and administered. The demographics survey was also passed out and administered. The papers were collected by the researcher and the participants were given a debriefing sheet providing more information about the study. The participants were thanked for participating in the research study. They were also reminded that they can contact the researcher if they have questions regarding the study in any way. Also those students from the introductory psychology classes received a credit slip for participating with the subject pool.
Hypotheses

The hypotheses of this study are performance-approach goals will predict higher academic success than mastery goals. Mastery goals will predict higher help seeking behavior than performance-approach goals. Work avoidance goals will have a negative effect on both academic success and help seeking behavior. Lastly, help seeking behavior will have no effect on academic success.

Data Analysis

After all the surveys were collected, the researcher scored the achievement goal questionnaire. The results of the scale put the participants into one of three groups, mastery goal, performance-approach goal, or work avoidance goal. The mastery goal group was assigned the number 1, performance-approach number 2, and work avoidance number 3. These numbers were entered into the SPSS program. Gender is nominal data was entered as 1 for male and 2 for female. The grade level is ordinal data was entered as 1 for freshmen, 2 for sophomore, 3 for junior, and 4 for senior. The subjects’ number of office hour visits and GPA are ratio data and were also entered into SPSS. The number of office hours and GPA were the data used in the statistical tests.

To test the hypothesis a few statistical test were done using the SPSS program. To test which achievement goal has the highest GPA, a One-Way ANOVA was used. The results of this statistical test show which of the three achievement goals have the highest GPA. This answers the first hypothesis. Next, another One-Way ANOVA was used to test which achievement goal had the most office hour visits. The results of this test show which of the three achievement goals led to the most office hour visits. This
answered the second hypothesis. Lastly, a correlation was done to see the relationship between the number of office hour visits and GPA. This answered the last hypothesis. After the data analysis is complete the results will be reported and the hypotheses will either be supported or rejected.

Summary

The study deals with achievement goals, GPA, and help seeking behavior. It was conducted using Rowan University undergraduate students as subjects. The surveys were administered and scored by the researcher. The data was properly analyzed using the program SPSS. The statistical tests that were used are a correlation and two One-Way ANOVAs. The results will be reported and discussed. The results will either support the predictions made in chapter one or not support them. The implications of the results as they relate to achievement goal theory and the educational setting will be discussed.
Chapter IV – Results

Restatement of Hypotheses

The first research hypothesis was that performance-approach goals have higher academic success than mastery goals. The null hypothesis was that performance-approach goals will not have higher academic success than mastery goals. The second research hypothesis was that mastery goals will have higher help seeking behavior than performance-approach goals. The null hypothesis was that mastery goals will not have higher help seeking behavior than performance-approach goals. The third research hypothesis was that work avoidance goals will have the lowest academic success and help seeking behavior. The null hypothesis was that work avoidance goals will not have the lowest academic success and help seeking behavior. The fourth and final research hypothesis was academic success and help seeking behavior will not be correlated. The null hypothesis was academic success and help seeking behavior will be correlated.
Data Analysis

A total of 65 participants were included in this study. See table 4.1 for the demographics of the subjects.

Table 4.1: Demographics of the Participants

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Number of Subjects in Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>29</td>
</tr>
<tr>
<td>Females</td>
<td>36</td>
</tr>
<tr>
<td>Freshmen</td>
<td>21</td>
</tr>
<tr>
<td>Sophomores</td>
<td>18</td>
</tr>
<tr>
<td>Juniors</td>
<td>13</td>
</tr>
<tr>
<td>Seniors</td>
<td>13</td>
</tr>
<tr>
<td>Mastery Goal Students</td>
<td>20</td>
</tr>
<tr>
<td>Performance-Approach Students</td>
<td>35</td>
</tr>
<tr>
<td>Work Avoidant Students</td>
<td>10</td>
</tr>
<tr>
<td>Age Range</td>
<td>18 years old – 41 years old</td>
</tr>
</tbody>
</table>
The mean GPA for mastery goals is $M = 3.15$, the mean GPA for performance-approach goals is $M = 3.57$, and the mean GPA for work avoidance is $M = 2.85$. These values are shown on the graph below (see Figure 4.1).

Figure 4.1: Mean GPA for each Goal Orientation

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{mean_gpa_graph.png}
\caption{Mean GPA for each Goal Orientation}
\end{figure}

A One-Way ANOVA was then performed to determine if there are significant differences between the means of each goal orientation. The result of the one-way ANOVA is $F (2, 64) = 12.338, p = .000$. Since the F value is significant a post hoc test is done. The Scheffe Post Hoc is used to determine where the significance is within each group. According to the post hoc mastery goals and performance-approach goals are
significantly different, $p=.002$. This finding rejects the first null hypothesis that performance-approach goals have higher GPAs than mastery goals. Performance-approach goals and work avoidance goals were significantly different, $p=.000$, however, mastery goals and work avoidance goals were not significantly different, $p=.120$. This fails to reject the third null hypothesis that work avoidance goals have the lowest academic success.

The mean office hour visits for mastery goals is $M=2.20$. The mean office hour visits for performance-approach goals is $M=1.40$. The mean office hour visits for work avoidance goals is $M=.01$. These values are shown on the graph below. (see Figure 4.2).

Figure 4.2: Mean Visits for each Goal Orientation
A one-way ANOVA was done to see if these mean office hour visits for each goal orientation are significantly different. The result of the one-way ANOVA is $F(2, 64) = 5.412, p=.007$. Since the $F$ value is significant a post hoc test is done to determine where the significant differences are. The Scheffe Post Hoc test is used. According to the post hoc test the mean number of office hour visits for mastery goals and performance-approach goals are not significantly different, $p=.299$. This finding fails to reject the second null hypothesis that mastery goals will have higher help seeking behavior than performance-approach goals. The mean number of office hour visits for mastery goals and work avoidance goals are significantly different, $p=.008$, but the mean number of office hour visits for performance-approach goals and work avoidance goals are not significantly different, $p=.191$. These findings fail to reject the third null hypothesis that work avoidance goals will not have the lowest help seeking behavior.

The final statistical test was a Pearson’s Correlation between the variables office hour visits and GPA. The results are $r=.047$, which is not a significant correlation. See Figure 4.3 for a scatter plot of the correlation. This rejects the null hypothesis that GPA and office hour visits will be correlated.
Summary of Results

According to the results of this study, performance-approach goals predicted higher academic success than mastery goals. Mastery goals did not predict higher help seeking behavior than performance-approach goals. Work avoidance goals did not predict the lowest academic success and help seeking behavior. Finally, help seeking behavior has no effect on academic success.
Chapter V – Discussion

Discussion

Some findings of this research study were in line with previous research discussed in chapter II. The result from this study that state that performance-approach goals lead to higher academic success is in line with other studies. Harackiewicz et al. (1997) found that performance goals had a positive effect on graded performance over mastery goals. Harackiewicz et al. (2000) found the same results that performance goals lead to higher grades in the course and throughout the students’ college career. Harackiewicz et al. (2002) also found that performance goals predict higher grades. The hypothesis of this current study that performance-approach goals predict higher academic success is supported by previous research. Previous studies show that students who adopt performance goals are more likely to obtain higher GPAs which is looked at as beneficial in society and the school system.

The results of this study that mastery goals do not necessarily predict the highest help seeking behavior was a disappointing result. Karabenick (2003) found that mastery goal orientation students were more likely to engage in help seeking behavior than performance goal students. Karabenick (2004) also found that mastery goals positively predict help seeking behavior and negatively predict help seeking avoidance. Although the mean average of help seeking behavior was higher for mastery goals it was not statistically significant in this current research study. The sample size was not as large as the research would have wanted. This may have been one of the reasons the second hypothesis regarding help seeking behavior was not supported. Although previous
research shows that mastery goals predict higher help seeking behavior this current study did not support the findings of these previous studies.

The last hypothesis of this current research was that academic success and help seeking behavior will not be correlated. The results supported this hypothesis. No previous research tested this hypothesis directly. However, the previous research that found performance goals had higher academic success and mastery goals had more help seeking behavior would lead to the thought that help seeking behavior does not lead to higher academic success. This thought was supported in this current study.

Limitations and Research Implications

One of the major limitations of this study was that a few of the participants were high in performance-approach goals and mastery goals. As the researcher scored the questionnaires it was thought that a few of the students do possess both mastery and performance-approach goals. A new questionnaire should be developed which adds a goal orientation that is a combination between performance-approach goals and mastery goals. According to the multiple goal perspective students who can adopt more than one achievement goal may have the advantage. (Pintrich, 2000). A study needs to look further into students who do in fact adopt both performance-approach and mastery goals to see if they have the most positive outcomes. According to Harackiewicz (2001) students may be better off when they adopt both mastery and performance goals. This should spark researchers to develop a new achievement goal scale to correctly assess what goals the students actually have.
The current study has many implications for the educational setting and for future research. The finding that help seeking behavior does not increase academic success should be looked at further. Professors should want their students to come to them for help and in turn be rewarded with higher grades. Professors should be aware that students who come for help do not improve their grades. Professors should look at what their students are asking them and how they are helping or not helping them. Why does asking for help not increase your success? This question should be developed in further research. If this question is not answered students may stop asking for help when they need it, if it will not improve their grades.

Although previous research stresses mastery goals over performance-approach goals; this research study seems to give performance-approach the better outcomes. More research should look into the positive effects of mastery goals over performance-approach goals. Also the manner in which college classes are taught seems to foster performance-approach oriented students. Looking further into the types of college classes and achievement goal orientation would be an interesting study. Further research on achievement goals will add to the debate on which achievement goals are the most beneficial for different situations. Achievement goals are a fascinating and growing field of research with many benefits for the educational system.

Conclusion

This study showed that achievement goals effect academic success of undergraduate students, but not help seeking behavior. According to this research study performance-approach goals are significantly higher than mastery goals and work
avoidance goals in relation to the students’ academic success measured in current cumulative GPA. Mastery goals are significantly higher than work avoidance goals in relation to help seeking behavior measured in professor office hour visits. However, mastery goals are not significantly higher than performance-approach goals in help seeking behavior. Lastly, academic success and help seeking behavior is not correlated. According to the results of this research study achievement goals only affect academic success and not help seeking behavior of undergraduates.
References


Karabenick, S. A. (2004). Perceived achievement goal structure and college student


Retrieved on September 8, 2005, from PsycINFO database.


Turner, J. C., Meyer, D. K., Anderman, E. M., Midgley, C., Gheen, M., & Kang, Y. (2002). The classroom environment and students' reports of avoidance strategies...


Appendix: Exact Materials Used
Hey Meghan,

Yes you can certainly get a hold of the scales. It's been a while since I've even looked at that paper... but we do report the items in the paper, right? So you would be able to get them directly from there.

If they are not in the paper, let me know and I can get them to you.

Glad to hear you're wanting to do work on goals... what kind of study are you thinking of conducting?

---- Original message ----
> Date: Tue, 20 Sep 2005 20:04:09 -0400
> From: "Meghan McCarthy" <mccartma@hotmail.com>
> To: barronke@jmu.edu
> >
> >Dr. Barron,
> > Hi, this is Meghan McCarthy, I was in your motivation in education seminar course last fall, (the quite one). I am in graduate school now at Rowan University in NJ for School Psychology. I am planning on doing my thesis on achievement goals. I was wondering if you could tell me how to go about using the goal questionnaire used in your Revisiting the benefits of performance-approach goals in the college classroom:exploring the role of goals in advanced college courses-Table 1. Is it even possible to get a hold if it to use? As I was deciding on a topic for my thesis, I remembered reading the articles that Sarah and I did our presenation on in your class and really finding them interesting. Thanks and I look forward to hearing from you. Sincerely, Meghan McCarthy
> >
> >
>
>Is your PC infected? Get a FREE online computer virus scan from McAfee?
>

Dr. Kenn Barron, Associate Professor
Department of Psychology
MSC 7401
James Madison University
Harrisonburg, VA 22807

office: (540)568-4065
fax: (540)568-3322

Informed Consent

I agree to participate in a study entitled “Achievement Goals Effect Academic Success and Help Seeking Behavior of Undergraduates,” which is being conducted by Meghan McCarthy of the School Psychology MA program at Rowan University.

The purpose of the study is to evaluate achievement goals of students. The data collected in this study will be used in Meghan’s master’s thesis only.

I understand that I will be answering a questionnaire. My participation in this study will not exceed fifteen minutes.

I understand that my responses will be anonymous and that all the data will be kept confidential. I agree that any information obtained from this study may be used in Meghan’s thesis and that I am in no way identified and my name is not used.

I understand that there are no physical or psychological risks involved in this study, and that I am free to withdraw my participation at any time without penalty.

If I have any questions or problems concerning my participation in this study I may contact Meghan McCarthy at 856-307-1064.

Participant’s signature __________________________ date ________________

Researcher’s signature __________________________ date ________________

Advisor’s signature __________________________ date ________________
Answer each question according to the scale below.

1 = completely disagree  
2 = disagree  
3 = slightly disagree  
4 = neutral  
5 = slightly agree  
6 = agree  
7 = completely agree

1. It is important for me to do well compared to others in my classes.  
2. The most important thing for me in my courses is to understand the content as thoroughly as possible.  
3. I want to learn as much as possible in my classes.  
4. I want to get through my courses by doing the least amount of work possible.  
5. I do not care about how I do compared to the other students in my classes.  
6. I just want to do as much as I have to in order to get by in my classes.  
7. My goal in my classes is to learn as much as I can about this topic.  
8. I want to do as little work as possible in my classes.  
9. Mastering the material in my courses is important to me.  
10. My goal in my classes is to get a better grade than most of the other students.
Demographics Survey

Please Circle

1. Male  Female

2. Freshmen  Sophomore  Junior  Senior

3. How many times on average do you go to a professor’s office hours during the course of a semester for help?
   0  1-3 times  4-6 times  7-9 times  10+ times

4. Cumulative Current GPA
   4.0 - 3.6  3.5 - 3.1  3.0 - 2.6  2.5 - 2.1  2.0 - 1.6  1.5 - 0

5. Age
   18  19  20  21  22  Other _______
Debriefing

Thank you for participating in today's project in which you received 20 minutes of research credit. Below is more information regarding this project topic. If you have any further questions feel free to contact Meghan McCarthy (mccartma@hotmail.com, 856-307-1064) or Dr. Dihoff (856-256-4500 x3738) at any time.

The purpose of this study is to see if achievement goals effect students' academic success and help seeking behavior. The goal questionnaire was originally designed by Dr. Elliot and later adopted by Dr. Barron. The measure determined which goals you posses in an academic setting. The three goal orientations are mastery, performance-approach, or work avoidance. Mastery goal oriented students are concerned with mastering the course material. Performance-approach goal oriented students are concerned with receiving high grades in their classes. Work avoidance goal oriented students are concerned with doing as little work as possible to get by in their courses. Past research has shown that students with mastery goal orientations have more help seeking behavior. Students with performance-approach goal orientations have high GPAs. Lastly, students with work avoidance goal orientations have lower GPAs and help seek less.

The results of this project will be used in my master's thesis and will add to the current research on achievement goals and goal theory.

The following is a list of sources you might wish to consult for further information on this topic:


