

## **THE EFFECTS OF GENDER AND GRADE LEVEL ON THE MOTIVATIONAL NEEDS OF FAMILY AND CONSUMER SCIENCES STUDENTS**

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*The effects of gender and grade level on the motivational needs of students enrolled in family and consumer sciences education (FCSE) programs were determined. Results showed that students enrolled in family and consumer sciences (FCS) classes regardless of gender and grade level had a higher need for achievement than affiliation, but a higher need for affiliation than power. Male students had a higher need for achievement and affiliation than female students, but female students had a higher need for power than male students. Students who were juniors (11<sup>th</sup> graders) had a higher need for achievement than students in other grades, freshmen (9<sup>th</sup> graders) had a higher need for affiliation, and seniors (12<sup>th</sup> graders) had a higher need for power.*

Motivation is defined as the process whereby goal-directed activity is instigated and sustained (Pintrich & Schunk, 1996). It causes us to act in a specific way at a particular time (Plotnick, 1993); it is something that moves a person (Kalat, 1993). Motivation could be perceived as one of the most important psychological concepts in education (Vallerand, Blais, Briere & Pelletier, 1992) and substantial research has been conducted on the topic whereby theories have been developed and proposed. According to Pintrich and Schunk (1996), most motivational theories propose a construct such as instinct, drive, habit, needs, or goals that provide the engine to move organisms to act and also the direction in which to act.

In educational research, motivation has centered on goal theories (Ford, 1992; Locke & Latham, 1990). However, goal theories fail to address the issue of what energizes or moves behavior. On the other hand, needs theories are based on the idea that people have different needs and searching to satisfy those needs is what motivates, energizes, or moves behavior. Need provides the force for all behavior including perception, thought, and action (Pintrich & Schunk, 1996). Thought and action are important concepts when working with secondary students as they are an embedded part of motivation.

Although motivation is an important concept in education, educators and students differ on what motivates. Most studies of student motivation have been concerned with factors that educators believe motivated students rather than the motivational needs as perceived by students (Crump, 1995; Dembrowsky, 1990; Horne, 1991). In contrast, Turner and Herren (1997), addressed the motivational needs of students enrolled in secondary agricultural education classes and discovered that students were motivated by the need for achievement. Turner and Herren further determined that students enrolled in secondary agricultural education classes who were members of FFA had a greater need for achievement, affiliation, and power than those students who were not FFA members. Similarly, Rutter, Smith, and Hall (2002) focused on the

motivational needs of students who were enrolled in family and consumer sciences (FCS) classes and concluded that FCS students were motivated by the need for achievement more than the need for affiliation and by the need for affiliation more than the need for power. Additionally, FCS students who were members of Family, Career, and Community Leaders of America (FCCLA) had a higher need for affiliation and power than those who were not members.

A paucity of research exists on motivational needs of students generally and FCS education students specifically. The one study concerning the motivational needs of FCS students (Rutter, Smith & Hall, 2002) theorized that gender and grade level may affect the motivational needs of students enrolled in FCS classes. Therefore, in this study, the researchers have attempted to determine the effect of gender and grade level on motivational needs of secondary FCS students.

### **Theoretical Framework**

Various theories (Alderfer's ERG—existence, relatedness, and growth— theory, 1972; Herzberg's two factor theory, 1971; Maslow's need hierarchy, 1954; McClelland's motivational theory, 1987) have tried to answer the basic question of what causes or stimulates behavior by conceptualizing needs or motives that cause people to behave in a certain way. According to some researchers (Chusmir, 1989; Wong & Csikszentmihalyi, 1991), McClelland's three factors of intrinsic motivation are applicable and relevant when studying human behavior. Therefore, the motivational theory developed by McClelland (1987) was selected for the theoretical foundation of this study.

McClelland's theory described three different types of motivational needs: the need for achievement (nAch), the need for affiliation (nAff), and the need for power (nPower). McClelland's theory is based on the belief that most people have either one or a combination of the three needs which motivate them toward a certain pattern of behavior. Furthermore, his theory suggests intrinsic motivators as critical to meeting the needs of students because they describe a pattern of how a person may behave.

The need for achievement is behavior directed toward competition with a standard of excellence. Characteristics of high achievers are (a) a strong desire to assume personal responsibility for performing a task or finding a solution to the problem, (b) a tendency to set moderately difficult goals and take calculated risks, and (c) a strong desire for performance feedback especially in quantitative form. According to McClelland (1987), this need is shaped rather early in life in part by culture and in part by varying techniques of parenting.

The need for affiliation is a desire to establish and maintain friendly and warm relations with other individuals. Characteristics of individuals with a high need for affiliation are (a) a strong desire for approval and reassurance from others, (b) a tendency to conform to the wishes and norms of others when pressured by people whose friendships they value, and (c) a sincere interest in the feelings of others. Persons with a high need for affiliation are attracted to tasks involving groups (McClelland, 1984). Students with this need would tend to be the peacemakers, the team members, and the social coordinators. These students enjoy the challenge of group work. They want to be accepted by the group, therefore, they tend to listen, compromise, and enable a group to move forward.

The final motive in McClelland's theory is the need for power. This need is explained as the need to control others, to be responsible for them, and to influence their behavior. Characteristics of individuals with a high need for power are (a) a desire to influence and direct somebody else, (b) a desire to exercise control over others, and (c) a concern for maintaining

leader-follower relations. People with a high need for power tend to win arguments, persuade others, and seek power positions. McClelland (1984) suggested that there are two faces of power. The first face has a negative connotation, one that is concerned with having one's way by controlling and dominating others. The other face of power is called social or institutional. Social or institutional power reflects the process of leadership that uses persuasion and inspiration to help people achieve, to be happy, and to learn. This type of person who uses this form of power is one who helps people form and attain goals without dominating them.

### **Purpose**

The purpose of this study was to determine the effect of gender and grade level on the motivational needs of secondary students enrolled in FCS programs. A secondary purpose was to determine if differences exist based on gender and grade level on the motivational needs of students enrolled in FCS programs. Research questions for this study were

1. What motivational needs do students enrolled in secondary FCS programs exhibit in relation to need for achievement, need for power, and need for affiliation when gender and grade level are considered?
2. Do differences occur in relation to need for achievement, need for power, and need for affiliation of students enrolled in family and consumer sciences education (FCSE) classes based on gender and grade level?

### **Method**

#### Sample

The target population included all students in Georgia, grades 9-12, enrolled in 207 FCSE programs having a nationally affiliated FCCLA chapter which totaled 7,988 students. Cluster sampling was chosen to identify programs for this study. Twelve schools were randomly chosen with two schools selected from each of the six Georgia Department of Education districts to ensure an adequate sample size. Family and consumer sciences education programs with affiliated FCCLA chapters were sorted according to district then selected through a drawing.

#### Procedure

Phone calls were made to the 12 program instructors selected in the random drawing to describe the study and request their participation. A cover letter requiring the principal's signature, an instruction sheet, and appropriate number of surveys for each class were sent to the school. Instructors received a self-addressed, stamped manila envelope for returning completed surveys. Follow-up phone calls were made to all teachers to thank them for returning the studies or to remind them to return them as soon as possible. All of the teachers from the 12 schools who were invited to participate, administered and returned a total of 1,030 student surveys.

#### Instrument

The instrument used for measuring motivation was developed by Turner (1996) in a study of Agricultural Education students and FFA members. Turner modified the questions from an instrument used by Chusmir (1989). The questions were developed based on the three qualities of achievement, affiliation, and power identified by McClelland (1987). Five statements focused on need for achievement (nAch), affiliation (nAff), and power (nPower) for a total of 15 statements. An example of need for achievement (nAch) statement is: I try to win as many awards as I can. An example of a need for affiliation (nAff) statement is: I try to work in a group

instead of by myself. An example of a need for power (nPower) statement is: I tend to organize and direct the activities of others. A five-point Likert scale was used (1= strongly agree, 2=agree, 3=undecided, 4=disagree, 5=strongly disagree). Although recent arguments have been established for using Likert type scales without an undecided choice, Chang (1997) states that there seems to be little difference in findings as long as the numerical scale is clearly defined and consistent which is the case in this study.

Based on Litwin (1995) and Nunnally (1978) estimations, a score of .70 or higher on the Cronbach's alpha suggests good reliability. In Turner's (1996) study, the instrument had an overall Cronbach's alpha of .82. For this study, the overall instrument showed a Cronbach's alpha score of .78, slightly lower than that of Turner's, but well above the .70 recommended.

### Data Analysis

Means and standard deviations for each construct were calculated to determine motivational needs for each variable. One-way ANOVAs were completed with the level of significance established at .05. Upon finding significance with the omnibus tests, Tukey HSD was completed to adjust for multiple comparisons of the same data.

### Findings

On each scale, the three factors/motivational needs (nAch, nAff, and nPower) were summed to create a composite score for each variable ranging from a low of 5 (strongly disagree) to a high of 25 (strongly agree) where 5.0 to 9.00 was strongly disagree, 9.01 to 13.00 was disagree, 13.01 to 17.00 was undecided, 17.01 to 21.00 was agree, and 21.01 to 25.00 was strongly agree.

For gender, the examination of means showed need for achievement was the highest for both males and females,  $M = 19.17$  and  $M = 19.07$ , respectively. Whereas, need for power was the lowest for both males and females,  $M = 16.54$  and  $M = 17.00$ , respectively. In both cases, the mean score for males was higher than the mean score for females (see Table 1). No statistically significant differences were found based on gender in the need for achievement, need for affiliation, and need for power.

Table 1

*Means, Standard Deviations, and Analysis of Variance for Gender of Family and Consumer Sciences Students and the Need for Achievement, Affiliation, and Power*

Gender	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Achievement</i>					
Male	187	19.17	3.60	0.13	0.7224
Female	837	19.07	3.25		
<i>Affiliation</i>					
Male	187	17.90	3.18	0.32	0.5697
Female	837	17.74	3.45		
<i>Power</i>					
Male	187	16.54	4.06	2.23	0.1355
Female	837	17.00	3.75		

\*Range 5 low to 25 high

Regarding grade level, mean scores revealed that students who were in the 11<sup>th</sup> grade (juniors) received the highest mean rating on achievement ( $M = 19.40$ ) followed by sophomores and then seniors. On grade level and affiliation, freshmen had the highest mean score ( $M = 17.93$ ) followed by seniors and then juniors. Grade level and power yielded different results where seniors had the highest mean score ( $M = 17.19$ ) followed by juniors, sophomores, and finally freshmen. There were no statistically significant differences in the need for achievement, need for affiliation, and need for power based on grade level (see Table 2).

Table 2

*Means, Standard Deviations, and Analysis of Variance for Grade Level of Family and Consumer Sciences Students and the Need for Achievement, Affiliation, and Power*

Grade Level	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>
<i>Achievement</i>					
Freshman	217	18.73	3.31		
Sophomore	276	19.16	3.28		
Junior	210	19.40	3.27		
Senior	321	19.06	3.36	1.53	0.2051
<i>Affiliation</i>					
Freshman	217	17.93	3.44		
Sophomore	276	17.64	3.43		
Junior	210	17.75	3.31		
Senior	321	17.79	3.42	0.29	0.8321
<i>Power</i>					
Freshman	217	16.64	3.51		
Sophomore	276	16.80	3.98		
Junior	210	16.93	3.73		
Senior	321	17.19	3.90	1.0	0.3919

\*Range 5 low to 25 high

## Conclusions

Three major findings are reported from this study. First, regardless of gender and grade level, students in this study had a higher need for achievement than affiliation, but a higher need for affiliation than power. Second, males had a higher need for achievement and affiliation than females, but females had a higher need for power than males. Last, students who were juniors (11<sup>th</sup> graders) had a higher need for achievement, freshmen (9<sup>th</sup> graders) had a higher need for affiliation, and seniors (12<sup>th</sup> graders) had a higher need for power.

## Discussion

Both males and females, and students in all grade levels, had a higher need for achievement than the other two motivational needs, affiliation and power. Of the three motivational needs, achievement is believed to be the most important as evidenced by McClelland devoting more than four decades of research on this component (Franken, 2002). Many researchers believe that the pleasure of achievement is not in attaining the goal but in developing and exercising skills (Franken, 2002). Given the two aforementioned statements, FCS teachers have a paramount task and professional responsibility in meeting the achievement needs

of FCS students. In order to accomplish the task of meeting the achievement needs of students, FCS teachers should focus on learning experiences that will help develop and use new skills as well as refine previously learned skills. Additionally, FCS teachers should utilize the structured programs of the youth organization, Family, Career, and Community Leaders of America (FCCLA), as they strive to help students meet the need for achievement. FCCLA is an integrated curriculum (Family, Career, & Community Leaders of America, 2000); therefore, it is possible to address the motivational needs of achievement via its activities.

The need to belong and to relate to others has a significant influence on students in the classroom (Raffini, 1996). Recognizing that all students have a need to belong, activities can be planned to meet the need for affiliation. In this study, males had a higher need for affiliation than females. Recent studies (Fox & Van Buren, 1997; Lee, 1998) show that the number of males in FCS is steadily increasing. Consequently, FCS classes with a high population of males should deliberately provide activities that enhance togetherness and group work. McClelland (1987) described affiliation as an activity where a group or team must rely on each other for the outcome. To meet the affiliation need of students, FCS teachers should consider using models of cooperative learning which have been designed for the purpose of group learning. According to Vermette (1998), cooperative learning in its various forms is the most important instructional innovation available to practitioners. FCS teachers are encouraged to utilize cooperative learning models and strategies in their classes.

The need for power was the weakest for students in this study. However, the writers do not want to forgo the opportunity to address the need for power. A need for power can be viewed as a positive trait and will be treated as such in this study. According to McClelland (1984), the positive connotation of power is called social/institutional and is used to help others achieve. FCS teachers are encouraged to channel the energies of students with a need for power in a constructive way. Therefore, careful consideration should be given to grade level of students when roles of leadership are assigned in cooperative group settings as well as other class activities. This is especially true in FCS classes where often students in grades 9-12 are enrolled. In this study, seniors had the highest need for power.

The three motivational needs can work together in a very powerful way. That is, achievement can enhance affiliation and in turn achievement and affiliation can strengthen power. Therefore, the three needs are working together to meet the needs of students.

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