

Achievement Goal Orientation and Academic Performance in Undergraduate Students

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The study explored the achievement goals and perceived competence in high, average and low academic achievers; and investigated the relationship between the achievement (grade point average, GPA) and achievement goals. A sample of 17 high, 33 average, and 12 low achievers with an age range of 20 to 24 years was obtained from a public university. Achievement Goal Questionnaire (Elliot & Church, 1997) measured achievement goals and perceived competence scale, developed as a part of this study, were used to measure the perceived competence of the students. One-way Analysis of Variance indicated that high achievers significantly scored high on performance approach goals, mastery goals and perceived competence compared to average and low achievers. However, no significant differences were observed among high, average and low achievers with regard to performance-avoidance goals. Academic achievement was positively correlated with approach orientation, and performance-approach goal was identified as the strongest predictor of GPA. The study can be beneficial for teachers, educationists and parents as it indicates that approach orientation contributes to academic achievement.

Keywords: approach orientation, performance-avoidance goals, perceived competence, academic performance

Murray (1938), McClelland (1961), and then Atkinson (1964) proposed a classically oriented academic achievement process that was based on two conflicting needs; the need to achieve success and the need to avoid failure. Experts in the field at that time believed that some students work towards achieving success; others avoid failure. Students who are motivated by the need to achieve success pursue attainable goals of moderate difficulty. In contrast students motivated by the need to avoid failure set goals that are either very easy or very difficult. In this way they avoid failure by succeeding at easy tasks or they blame their failure on the fact that the task was difficult (Crowl, Kaminsky, & Podell, 1997).

In the 1970s, achievement theorists shifted their attention from global motive dispositions to more situation-specific, process-oriented variable (e.g., causal attributions). A novel way of construing achievement motivation emerged; one that focused on goals as situation-specific motivational constructs that fostered particular patterns of achievement, including relevant affect cognition, and behavior. A number of theorists and investigators emerged with this perspective; however, Dweck (1990) and Nicholls (1984) are commonly identified as two of the most prominent pioneers of this approach. The types of goals identified by Dweck, Nicholls, and the other theorists allow the union of mastery and performance goals.

The classic, as well as the contemporary approaches of achievement motivation contribute in understanding of student's competence behavior. Over the past few years, Elliot and Church (1997) along with their colleagues worked to establish an integrative relationship between the classic and the contemporary approach to the concept of achievement motivation, which resulted in "a hierarchical model of approach and avoidance achievement motivation," and incorporates the primary strengths of the need achievement and achievement goal frameworks.

At the center of their hierarchical model is an approach-avoidance achievement goal framework, which consists of three parts (Elliot, 1994; Elliot & Harackiewicz, 1996). This model postulates three achievement goals i.e., mastery, performance approach, and performance avoidance goals. Mastery goals aim at the attainment of task mastery and emphasize on self/task competence whereas performance approach goals focus on competence in relation to others. Performance-approach goals focus on personal intention to be perceived competent or perform well in the eyes of others. They emphasize on the normative competence i.e. where does a student stand in his normative group. Performance oriented students tend to respond to extrinsic motivation; and can be put under the category of approach orientation, because it regulates the behavior in the context of normative competence. (Elliot & Church, 1997).

A performance-avoidance goal as the name suggests focuses on avoiding incompetence relative to others. Simply stated it is the motive or desire of a student to avoid failure or to only pass an exam. People adopting this goal will most likely enter an exam with the minimum motivation just to pass it. They do not want better grades; for them passing an exam is good enough (Elliot & Church, 1997).

Competence expectancies orient the individual towards the "possibility of success or the possibility of failure" (Elliot & Church, 1997, p. 172). These expectancies influence the achievement behavior directly and/or indirectly and affect achievement goal adoption. The relationship between competence expectancies or perceived competence of an individual (regarding his own self) and achievement goals is direct and simple. Individuals with high competence expectancies orient themselves towards the possibility of success and adopt approach forms of self-regulation (performance-approach and mastery goals); and those with low perceived competence are oriented towards possibility of failure and take up performance avoidance goals (Elliot & Church, 1997). Simply stated individuals who will perceive themselves as competent will take on challenges, put in effort to win those challenges and ultimately be successful. On the other hand people who will perceive themselves as incompetent will avoid challenges,

will think that putting in effort is of no use because they are naturally not capable to accomplish the task at hand, resulting in avoidant behavior.

There is an extensive amount of literature (Brunstein, 1993; Dweck & Leggett, 1988; Elliot & Church, 1997; Harackiewicz, Barron, Tauer, Carter & Elliot, 2000; Harackiewicz, Tauer, Barron & Elliot, 2002, Pekrun, Maier & Elliot, 2009, Wolters, 2004), which indicates the significance of achievement learning goals in academic settings. Achievement learning goals that involve approach (mastery and performance approach goals) and avoidance (performance avoidance goal) orientations affects the academic profile of students. The above studies also highlight the importance of perceived competence in relation with these three goals.

Many of these studies report a strong positive association between approach orientation and academic performance. Researchers suggest that students who pursue mastery goals show persistent interest in the class whereas the students who pursue performance goals strive towards achieving higher grades (Harackiewicz, Barron, Carter, Lehto & Elliot, 1997; Harackiewicz, Barron, Tauer, Carter & Elliot, 2000; Harackiewicz, Tauer, Barron & Elliot, 2002). Implications of these studies indicate that adoption of both mastery and performance goals contribute in positive outcomes in college education.

Elliot, McGregor and Gable (1999) suggest that mastery goals predict *deep processing* of the material, persistent study behavior and effort; performance approach goals predict *surface processing* of the material, persistent study behavior, effort and performance; and performance avoidance goals *negatively predict deep processing* of the material and exam performance. Elliot and Harackiewicz (1996) and Elliot and Sheldon (1997) proposed that avoidance achievement goals on academic performance. Studies indicate that performance avoidance goal pursuit cause worry cognitions during examinations, which in turn leads to poor academic performance and that these worry cognitions have a deleterious effect on performance and intrinsic motivation. Individuals who tend to approach their task with mastery goals in their mind have high competence expectancies and focus on task referential competence i.e., obtaining competence in a specific task. Individual with performance approach goals also lead to high competence expectancies but their focus is on normative competence i.e., performance in relation to classmates; whereas individuals with performance avoidance goals represent low competence expectancies and focus little on normative competence (Elliot & Church, 1997; Dweck & Leggett, 1988; Brunstein, 1993).

Very less indigenous research has been carried out in this area. Ahmad and Bashir's (2009) study indicated that students of applied sciences adopt learning goal orientation whereas students of pure sciences are more likely to have performance orientation. So in the light of the above literature we can say that approach orientation (mastery and performance-approach goals) leads to positive academic outcomes whereas avoidance orientation (performance-avoidance goal) leads to negative academic outcomes. Keeping in view the Pakistani educational system which is believed to be approach oriented to a large extent, this study intends to investigate the significance of the learning goals adopted by Pakistani students and how their perceived competence effects their academic achievement. The study intends to include achievement goal orientation and perceived competence measured as high, average and low achievers (based on GPA) and to investigate the relationship of approach orientation and avoidance orientation with academic achievement.

We hypothesize that high achievers would be more approach oriented (mastery and performance-approach goals) than average and low achievers. Low achievers would be more performance avoidance goal oriented than average and high achievers. High achievers would perceive themselves as significantly more competent than average and low achievers. There would be a significant positive relationship between approach orientation and academic achievement.

Method

Sample

Sample consisted of 17 high (girls = 8, boys = 9), 33 average (girls = 19, boys = 14) and 12 low (girls = 4, boys = 8) academic achievers (see procedure below) of B.A ($n = 25$) and B.S ($n = 37$) Honours, IV year students from a local public university. Their age ranged from 20 to 24 years ($M = 21.63$, $SD = .82$)

Measures

Achievement Goals Questionnaire. Elliot and Church, (1997) used this scale to investigate achievement goals in students. The questionnaire consisted of 18-items and measured performance approach goals (e.g., "*It is important to me to do better than other students*"), "*I am striving to demonstrate my ability relative to others in the class*"); mastery goals (e.g., "*I want to learn as much as possible from the class*"), "*I desire to completely master the material presented in the class*"); and performance avoidance goals (e.g., "*My fear of performing poorly in the class in often what motivates me*"), "*I just want to avoid doing poorly in the class*"). The items were rated on a 7-point rating scale ranging from *Not at all true of me* (1) to *Very true of me* (7). None of the items was scored in reverse and the reliability of the scale i.e. Cronbach's alpha ranged from .77 to .91 (Elliot & Church, 1997). For the current sample Cronbach's alpha was reported to be .78.

Perceived Competence. Perceived competence self-report measure was developed as a part of this research. This measure consisted of 2-items i.e., "*I expect to do well in my subject in B.A. /B.Sc. (Hons)*", "*I will receive an excellent grade in my subject in B.A. /B.Sc. (Hons)*". These items were rated on a 7-point rating scale ranging from *strongly disagree* (1) to *strongly agree* (7) and the Cronbach alpha was reported to be .76.

Research Design

We used a single factor between-subject design in this study, and selected academic achievement as our independent variable with three levels, viz., high, average and low achievement. To analyze the data we used one-way Analysis of Variance (ANOVA) and post hoc t-tests. In addition, correlation (Pearson Product Moment) and regression analysis, identified the strongest predictor of academic achievement amongst the achievement goals.

Procedure

A purposive sample from undergraduate Honours, Year IV classes were screened into high, average and low achieving students based on their GPA in Year III final exams. A student having a

GPA, one standard deviation below the mean (2.00) was classified as low academic achiever; a student at the mean (2.70) GPA, was classified as an average academic achiever; a student having a GPA, one standard deviation above the mean (3.40) was classified as high academic achiever. The above classification was based on university's criteria for dividing the students into high, average and low achievers. Each student was tested in groups and was asked to sign an informed consent form before they began the study. They then completed Achievement Goal Questionnaire (Elliot & Church, 1997) and the perceived competence self-report measure.

Results

Table 1 shows mean score for high achievers was greater than average and low achievers on performance-approach goals, mastery goals, and perceived competence. Mean score of low achievers on performance-avoidance goals, was greater than average and high achievers, however the differences were not significant.

For performance-approach goals, we found a significant main effect for academic achievement $F(2, 61) = 7.14, p < .01$, and mastery goals, $F(2, 61) = 4.86, p < .01$, however, the three groups did not differ significantly on performance-avoidance goals, $F(2, 61) = 2.01, p > .05$. We did find a significant main effect for perceived competence, $F(2, 61) = 3.29, p < .01$.

For performance-approach goals, LSD post-hoc analysis indicated that high achieving students differed significantly ($p < .001$) than low achieving students, however, low and average achieving students did not differ significantly (see Table 1). For mastery goals, post-hoc analysis revealed low and average achieving students differed significantly ($p < .01$), however, high and average achieving students do not differ significantly. High achievers differed significantly ($p < .01$) from low achievers in perceived competence; however, high and average achievers did not differ significantly. High, average and low achieving students did not differ significantly on performance-avoidance goal.

The results are depicted in Figure 1.

Table 1
Means, Standard Deviations of the Sample on the Major Study Variables ($N = 62$)

Measures	High Achievers		Average Achievers		Low Achievers	
	$N = 17$		$N = 33$		$N = 12$	
	M	SD	M	SD	M	SD
Performance Approach Goals	37.41 ^{a,c}	4.30	32.57 ^{b,c}	5.83	29.58 ^{a,b}	7.08
Mastery Goals	38.11 ^b	4.15	35.09 ^{a,b,c}	5.34	30.75 ^{a,c}	10.12
Performance Avoidance Goals	27.11 ^b	4.58	26.93 ^b	6.14	30.66 ^b	5.74
Perceived Competence	11.82 ^{a,b}	2.94	10.57 ^{b,c}	2.00	9.50 ^{a,c}	2.77

^a $p < .01$; ^{b,c} not significant

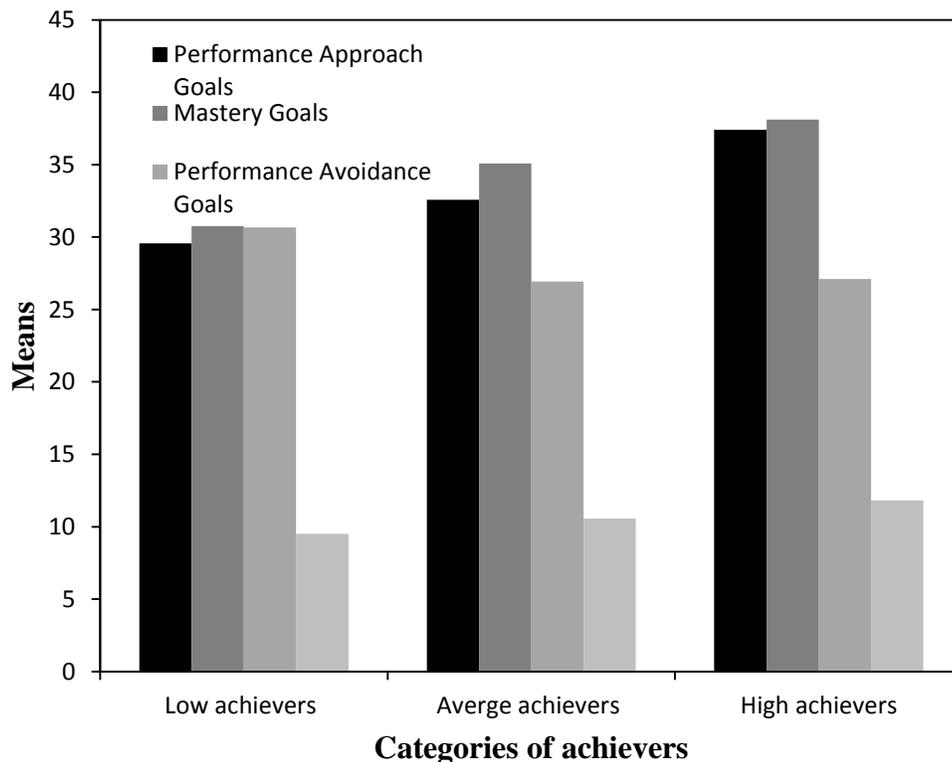


Figure 1. Achievement goals and perceived competence of academic achievers

Table 2
Correlation matrix between Achievement Goals and Academic Achievement (N = 62)

Variables	1	2	3	4
1. GPA	-----	.42**	.33*	-.04
2. Performance Approach Goals		-----	.61**	.36**
3. Mastery Goals			-----	.31*
4. Performance Avoidance Goals				-----

** $p < .01$, * $p < .05$.

Table 3
Stepwise Regression Analysis for variables predicting Academic Achievement (N = 62)

Variables	B	SEB	β	p
Step 1				
Performance	0.0309	.009	.43	.002
Approach Goals				

$R^2 = .18$.

Correlation matrix in Table 2 indicate that GPA has a significant positive correlation with performance-approach goals, $r = .42, p < .01$; and mastery goals, $r = .33, p < .05$; but a non significant negative correlation existed between GPA and performance-avoidance goals. Results also indicate a significant positive correlation between performance-approach goals with mastery goals, $r = .61, p < .01$ and performance-avoidance goals, $r = .36, p < .01$. Mastery goals and performance-avoidance goals are also positively correlated with each other $r = .31, p < .05$.

Stepwise regression analysis was used to test if the three achievement goals significantly predicted academic achievement and results indicated that performance-approach goals explained 18% of the variance ($R^2 = .18, p < .05$) in academic achievement. It was found that performance-approach goal was the strongest and a significant predictor of academic achievement ($\beta = .43, p < .01$; see Table 3).

Discussion

The results of the current research revealed that high, average and low achievers differed significantly on performance-approach and mastery goals and on perceived competence. The mean scores show that high achieving students are more likely to adopt performance-approach goals than low and average achieving students. This finding suggests that high academic achievers are more competitive and are more interested in attaining good grades than low and average achievers. The findings strongly support many studies especially Elliot and Church (1997), who reported that performance approach goals are positively associated with grade performance. The finding of the study also strongly support Elliot and Church (1997) model, which states that individuals use performance-approach goals and focuses on the attainment through competence relative to others. On the basis of this finding we can suggest that in Pakistani educational system is not different from many other educational systems around the world where getting good grades is valued by the teachers and the students alike; for high achieving

students relative position in a class matters, for it gives them a sense of achievement and pride.

Further results reveal that high, average and low achievers differed significantly on mastery goals. High academic achievers are more mastery oriented than average and low achieving students. On the basis of this finding it can be suggested that high achieving students are not only interested in getting good grades but they also strive to attain mastery of the subject. These findings replicate other findings (Harackiewicz et al., 1997; Harackiewicz et al., 2000; Harackiewicz et al., 2002), which indicate that the adoption of both mastery and performance goals result in positive outcomes in college studies. We think like Harackiewicz and colleagues, that mastery goals result in continued interest, whereas performance-approach goals result in good performance; in a way both goals contribute to high academic performance by developing interest in the course and also by making the person put in effort to get good grades. These findings strongly support approach orientation model proposed by Elliot and Church (1997) which states that approach orientations (mastery and performance-approach goals) regulate behavior to attain task and normative competence, respectively.

Low achieving students scored greater on performance avoidance goals than average and high achieving students, though these differences were not significant. These results are also supported by extensive literature (see Elliot & Church, 1997; Elliot & Harackiewicz, 1996) available on performance approach and avoidance orientations. Generally speaking, students who avoid achievement goals take an exam with a minimum motivation only to pass it. Elliot and Church (1997) suggest that performance avoidance goals work against grade performance, and Elliot and Harackiewicz (1996) indicate that performance avoidance goal pursuit cause worry cognitions during examinations which in turn undermines academic performance. Since there were no differences among low, average and high achievers in adopting performance avoidance goals, experts think that performance-approach goal, in particular, is more complex because it can serve an approach motive (need for success) and an avoidance motive (fear of failure) or both the motives considering the specific situation (Elliot & Church, 1997; Higgins, 1996; Sorrentino & Higgins, 1986).

For perceived competence high achievers perceived themselves more competent than average and low achievers. We propose high achievers feel confident and motivated to approach an exam with a positive expectation based on their previous GPA scores, which works as a positive reinforcement and motivates them to work hard for future. This we think is substantiated by our correlational analysis, which indicated that performance approach and mastery goals were positively correlated with GPA; whereas performance avoidance goal is negatively correlated with GPA (though not significant).

For students to do well in their academic achievement, our regression analysis indicated that performance-approach goal was the strongest predictor of academic achievement. These findings are also consistent with Harackiewicz et al. (2000), which indicated that performance approach goals positively led towards course grades and long-term academic performance.

The findings of our study showed that in Pakistani educational system context good grades in class and knowledge of the subject are the essential elements for becoming a high achiever. High achievers are competent and their high GPAs foster perceived competence in their belief. All this results from their performance and mastery approach orientation goals towards studies; this makes them competitive as well as good learners.

To summarize, this research concludes that high achievers are more approach oriented i.e. they pursue performance approach and mastery goals to contribute positively towards their grades, high achievers perceive themselves more competent than low and average achievers and performance-approach goal is a positive predictor of GPA.

This study can be helpful for educationists to differentiate among students with learning orientations and predicting their academic achievement and designing an approach oriented classroom environment. It could also be useful to students, teachers and parents as an assessment tool, so that students themselves, teachers, and parents can ascertain learner's potential for academic work.

Limitations

The sample was small and restricted to one educational institution; the study did not investigate into gender differences and also did not make a comparison of B.A and B.S Honours students in terms of the study variables.

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