374

Impact of Achievement Goals, Sociability and Gender on Academic Achievement of University Students

Irsa Fatima, Saba Ghayas, and Adnan Adil
University of Sargodha, Sargodha, Pakistan

The present study was aimed at investigating the achievement goals and sociability as predictors of academic achievement. Gender differences in academic achievement, achievement goals, and sociability were also explored in the study. The sample drawn through stratified random sampling consisted of 300 undergraduates from different departments of University of Sargodha including boys (152) and girls (148). Achievement Goals Questionnaire and Sociability Subscale of California Psychological Inventory were used to measure achievement goals and sociability level respectively. Regression analysis showed that only performance-approach goals significantly predicted academic achievement. Independent sample t-test demonstrated that girls are significantly high on academic achievement and performance-approach goals whereas boys were significantly more sociable.

Keywords: Achievement goals, academic achievement, sociability

Goals are referred as the end towards which one's efforts are aimed at (Was, 2006). Achievement goals are defined as concrete cognitive representations that focus on a particular type of competence (Elliot & Church, 2003). Achievement motivation has been a focus of research since last many decades (Conroy & Elliot, 2003; Elliott & McGregor, 2001; Pintrich & Schunk, 1996; Weiner, 1990; Nicholls, 1984). Many theories and models have been developed to explain motivation and achievement goals. All these theories are based on motivation and emphasize on four components i.e. the value that is assigned to the goals, perception of the competence of the individuals, causal attributions and finally emotional reactions about the task (Arias, 2004). According to trichotomous framework of achievement goals theory (Elliot & Church, 1997), there are three kinds of goals including mastery goals (which are characterized by striving hard for learning and mastering a material), performance-approach goals (which involve working in order to outperform others) and

performance-avoidance goals (that involve working hard in order to avoid negative evaluations by others). These have been studied in many contexts e.g. their relation has been studied with personality (Elliot & Thrash, 2002), student teachers' conception about learning and teaching (Eran, 2009), learning strategies (Elliot, McGregor, & Gable, 1999), self-efficacy (Middleton & Midgley, 1997), and student satisfaction, academic engagement and achievement (Roebken, 2007).

A recent stream of research has focused on the relationship of achievement goals and academic achievement. Academic achievement is defined as a task oriented behavior through which individual performance is evaluated according to some external or internal criterion that includes competing with others or some standard of excellence (Spence, 1938). Phan (2008) conducted a research and found that performance-approach goals were a significant predictor of academic achievement while mastery goals and performance-

avoidance goals were found unrelated with academic achievement. Another research conducted by Elliot, McGregor, and Gable (1999) found that performance-approach goals were significant positive predictors, performance-avoidance goals were significant and negative predictors, and mastery goals were found unrelated with academic achievement. Fibally, Chan and Lai (2005) with a sample of 1381 secondary school students found that performance-approach goals were strong predictors of academic achievement while performance-approach goals predicted academic achievement negatively. In lieu with this pertinent literature, the first hypothesis of the present study states that performance approach goals would be significant predictor of academic achievement.

Another trend in the recent research on academic achievement involves the investigation of the impact of psychosocial and demographic factors on academic achievement (Guglielmi, 2008; Caprara, Barbaranelli, Steca, & Malone, 2006; Aluja & Blanch, 2004; Bruinsma, 2004; Englund, Luckner, Whaley, & Egeland, 2004; Greene, Miller, Crowson, Duke, & Akey, 2004). Researchers have seen academic achievement in relation to socioeconomic status (Caro, 2009; Condron, 2007; Klein, Hamilton, McCaffrey, & Stecher, 2000), gender (Yousefi, Mansor, Juhari, Redzuan & Talib, 2010; Bruni, Ferini-Strambi, Russo, Antignani, Innocenzi, & Ottaviano, 2006; Donahue, Voelkl, Campbell, Mazzeo, 1999; McKenna, Kear, & Ellsworth, 1995) and sociability (Hsieh, 1998; Chen, Rubin, & Li, 1997) Wentzel & Asher, 1995; Masten, Coatsworth, Neemann, Gest, Tellegen, & Garmezy, 1995; Green, Forehand, Beck, & Vosk, 1980).

Keeping in pace with this recent trend, the current study has also incorporated sociability and gender as pertinent variables in relation to academic achievement.

Sociability is a personality trait that indicates the child's friendliness with strangers and lack of shyness (Buss & Plomin, 1984). Socaibility is the ability of being outgoing with others and the desire to establish interpersonal relationship with others (Caligiuri, 2000) enjoys social interaction (Guastello & Guastello, 2002), participates in a leader-less peer-group (Gifford, & Gallagher, 1985), possess a tendency to approach novel situations and people (Sanson, Hemphill, & Smart, 2004). Sociable behaviors may include behaviors such as showing concern, inviting by-standers to join an activity, stopping a quarrel, being cooperative, giving support, engaging in play, and having conversations with other children while playing (Coplan & Rubin, 1998).

Researchers have been interested in finding out the relationship between sociability and academic achievement as Wentzel and Asher (1995) concluded in a study that children who have high level of sociable characteristics attain high academic achievement in educational situation. Similar results were found by Hsieh (1998) who conducted a study on two hundred and thirty students including 108 boys and 122 girls from fourth, fifth and sixth grades of ten elementary schools in China. This study concluded that there is a significant and positive relationship between parenting styles and children's temperaments to their behavioral adjustments and academic achievement.

Another study, carried out by Chen, Rubin, and Li (1997) concluded that children who are liked and accepted in their peer group and hold leadership positions (in other words are sociable) are more likely to be high achievers at school. Children who are rejected by others have to face academic difficulties and cannot perform well in academic settings. Similar results have been found by many others who have indicated that children who show sociable and prosocial

behavior have higher academic achievement (Masten, Coatsworth, Neemann, Gest, Tellegen, & Garmezy, 1995). These empirical evidences provide a ground for the second hypothesis of the present study, which suggests that sociability would be a significant predictor of academic achievement.

As alluded to earlier, gender has also been conceived as pertinent factor in relation to academic achievement. Gender is the social dimension of being male or female (Santrock, 1999). Majority of studies on gender differences in academic achievement suggest that girls are high achievers as compared to boys. For instance, Bruni, Ferini-Strambi, Russo, Antignani, Innocenzi and Ottoviano (2006) conducted a study on 380 school students and found that girls had higher academic achievement than boys. McCall (1994) and Halpern (1992) also found that girls achieve better grades than boys do. Similar results were found by Mehmood (2003), who conducted a study in Karachi on a sample of postgraduate students. The results of his study demonstrate that girls significantly achieved better grades than their male counterparts did. Donahue, Voelkl, Campbell and Mzzzeo's (1999) research also indicated that girls outperformed boys in grade 4, 8, and 12. As per literature's direction, our third hypothesis predicts that girls would be high achievers in their academics as compared to the boys.

In contrast with the literature on gender difference in academic achievement, which suggests a definite direction; research exploring the relationship of gender with achievement goals have presented mixed results (e.g., Ablard & Lipschultz, 1998; Ee, 1998; Roeser, Midgley, & Urdan, 1996). Roeser, Midgley, and Urdan (1996) reported that boys are more performance oriented than girls are. Ee (1998) also found that the boys possess higher level of performance orientation than girls do and no difference was found on mastery goals. Ablard and

Lipschultz (1998) carried out a study and found that girls are higher at learning goals (mastery goals) but they did not find difference on performance goals. Another study by Brdar, Rijavec and Loncaric (2006) concluded that boys are higher at performance-avoidance goals while girls are more likely to adopt mastery goals. In our endemic context, girls have been found high academic achievers as compared to boys (Mehmood, 2003) and since performance approach goals have been found as significant predictors of academic achievement (Fibally, Chan & Lai, 2005; Phan, 2008); girls would, therefore, be more likely to adopt performance approach goals. In accordance with this line of reasoning, our fourth hypothesis states that girls would be high on performance approach goals as compared to the boys.

Studies on gender difference in sociability also present mixed findings. For instance, in one meta-analysis, Feingold (1998) found that the female strangers were perceived more sociable than the boys were. He further elaborated that these differences were moderated by the stranger's sex. Male perceivers viewed the females more sociable than the stranger females did. Similar results were found by Feingold (1994), who conducted four meta-analyses in order to find gender differences on personality. He concluded that females' score on extraversion was slightly higher than males'. In contrast, finding from another meta analysis involving data from 30 countries indicate that males are more social than females (Lynn, & Martin, 1997). Finally, Else-quest, Hyde, Goldsmith, and Hulle, (2006) were unable to find any gender differences in sociability. In the context of Pakistani culture, where girls are not allowed to talk to strangers and are taught to be modest and shy in contrast to the boys who take pride in being assertive and outgoing, boys are expected to be more sociable than the girls and this constitutes our fifth hypothesis.

Method

Sample:

The sample of the present study comprised of 300 BS (fourth semester) students of University of Sargodha (boys 152 and girls 148). The mean age = 21.5, *SD* = 3.03). The students of sports, self-finance, and disability quota were not included in the sample.

Instruments:

Achievement Goal Questionnaire (AGQ): It was developed by Elliot and Church (1997). It measures all the three goals Mastery goals (6 items), Performance-approach goals (6 items) and Performance-avoidance goals (6 items). The reported reliability alpha for this scale is .92 (Elliot & Church, 1997) the same for Mastery, Performance-approach and Performance-avoidance subscales are .89, .91 and .77

respectively (Chan & Lai, 2005).

Sociability Sub-Scale of California Psychological Inventory (Gough, 1957): It was used to measure the sociability level of the students. California Psychological inventory is a 480 dichotomous item self report measure comprising of 18 subscales. This sub-scale consists of 32 items. The items are to be responded on a true-false, two point rating scale. Item no. 3, 7, 8, 13, 14, 15, 16, 18, 21, 26, 29, 30, and 32 are to be reversely scored. Maximum score on sociability subscale is 64 and lowest possible is zero.

Procedure:

Heads of all departments offering BS programs in University of Sargodha were contacted and permission was sought for collection of data from students of BS fourth semester.

Results

Table 1. Descriptives, Alpha Coefficients, and Correlations of Variables

Variables	*M*	*SD*	*á*	PAPG	MASG	PAVG	Sy	CGPA
PAPG	35.08	5.92	.70	-	.40**	.30**	.06	.23**
MASG	34.97	6.80	.73	-	-	.26**	.09	.06
PAVG	28.98	6.52	.71	-	-	-	.02	.03
SY	18.04	4.64	.71	-	-	-	-	-.08
CGPA	2.89	.49	-	-	-	-	-	-

Note. Please read PAPG as Performance-Approach Goals, MASG as Mastery Goals, PAVG as Performance-Avoidance Goals and Sy as Sociability

**p* < .01

Table 1 presents descriptive scores of mean and standard deviations for the various constructs as per their operationalization in this study. The table also reports alpha reliability estimates of various measures of variables and indicates that all the scales have acceptable levels of internal consistency as alpha for all the scales was greater than .70. The overall alpha reliability for Achievement Goals Questionnaire came out to be .79 suggesting the internally consistent structure of the scale.

Table 1 also illustrates correlation coefficients among the variables of the present study. The correlation matrix

demonstrates that performance-approach goals had significant positive correlation with mastery goals (*r* = .40, *p*< .01), performance-avoidance goals (*r* = .30, *p*< .01), and CGPA (.23, *p*<.01) while it had non-significant correlation with sociability. Similarly, there was a significant positive correlation between mastery goals and performance-avoidance goals. Performance approach goals have weak but positive correlation with sociability (*r* = .06), mastery goals too have a weak and positive correlation with sociability (*r* = .09), and there exists a weak and positive correlation between performance avoidance goals and sociability (*r*=.02). Moreover,

performance approach, mastery, and performance avoidance goals are significantly and positively related with each other.

Table 2. Hierarchical Regression Analysis for Predicting Academic Achievement from Achievement Goals and Sociability (N= 300)

Predictor	"R^2	$â$
Step 1	.056	
Performance Approach Goals		.25***
Mastery Goals		-.02
Performance Avoidance Goals		-.03
Step 2	.010	
Sociability		-.09
Total R^2		.065**

**p< .01, ***p<.001.

Table 2 presents the findings of hierarchical regression analysis for predicting academic achievement from achievement goals and sociability. In first step, three types of achievement goals were entered as predictors of CGPA. Only performance approach goals turned out to be positive and significant predictor of academic achievement in terms of CGPA ($â$=.25, p=.000). The model was statistically significant {F (3, 296) =5.81, ***p=.000} and explained 5.6% variance in CGPA. It means that the major hypothesis of the study i.e., "performance approach goals would positively predict academic achievement" is supported. In second step, sociability was entered as predictor of academic achievement which was found to be non significant and negative predictor of academic achievement ($â$ = -.09, p=.08). This model explained an additional variance of 1% in academic achievement which was non significant {"R^2=.010, F(1,295)=3.01, p=.08}. Sociability is not found a good predictor of academic achievement which was contrary to the second hypothesis.

Table 3. Gender Differences in CGPA, Achievement Goals, and Sociability

Variables	Boys (n =158)		Girls (n =142)		t value
	M	SD	M	SD	
CGPA	2.77	0.52	3.05	0.42	4.99***
Performance Approach Goal	33.94	6.08	36.35	5.49	3.57***
Mastery Goal	34.8	8.08	35.06	5.03	0.23
Performance Avoidance Goal	28.42	6.42	29.60	6.60	1.57
Sociability	18.75	4.69	17.24	4.46	2.86**

**p < .01, ***p < .001

Table 3 presents the results of independent sample t-test for exploring the gender differences in academic achievement, performance achievement goals, performance avoidance goals, mastery goals, and sociability. The results indicate significant gender differences in academic achievement where girls had significantly higher mean CGPA (*M*=3.05, *SD*=0.42) as compared to the boys (*M*=2.77, *SD*=0.52). Thus, our third hypotheses was supported. Girls were also found to be significantly higher on performance approach goals (*M*=36.35, *SD*=5.49) as compared to boys (*M*=33.94, *SD*=6.08) which provides the empirical support for the fourth hypothesis of this study.

Boys, however, surpassed girls in sociability as their mean score on sociability (*M*=18.75, *SD*=4.69) was significantly higher than that of girls (*M*=17.24, *SD*=4.46). Thus, our fifth hypothesis has also been supported. Finally, girls and boys did not significantly differ in performance avoidance goals where they got comparable mean scores.

Discussion

In the present study, achievement goals have been studied as predictors of academic achievement. Moreover, the study was interested in exploring gender differences in achievement goals. The main objective of the study was to predict academic achievement

from achievement goals and sociability. The first and major hypothesis was that "performance-approach goals will be significant predictor of academic achievement", which was empirically supported through the findings of regression analysis (See Table 2). The results are consistent with the findings of Chan and Lai, (2005) who found that performance-approach goals are good predictors of exam performance and academic achievement as compared to mastery or performance-avoidance goals. They further added that based on performance-approach goals, deep learning strategies can be predicted and these strategies can contribute positively in their grades. Similar results have been found by Elliot, McGregor and Gable (1999). They found that performance-approach goals were significant positive predictors of exam performance. Individuals having performance-approach goals are more likely to adopt learning strategies that involve persistence and effort in the studies; hence, they get better grades in the examination. Performance-approach goals are the goals that orient the individuals to compare themselves with others, demonstrate their abilities relative to others, work hard so that they might approach success (Shih, 2005) and be appraised positively (Was, 2006). In short, these goals orient students to see their success in tangible outcomes (i.e. better grades). It is not surprising for such individuals to work hard for the sake of examination and grades. As it is evident from the definition, the students having these goals are more concerned with outperforming others, so they are more likely to perform better than others in academic setting and hence, achieve better grades.

In one study, Shih (2005) found the effect of combination of achievement goals on academic achievement and found that performance-approach goals were positive and better predictors of rest of all goals and the combinations. Shih demonstrated that

combination of low mastery and high performance-approach goal was better predictor of academic achievement than the combination of high mastery and performance-approach goals. This indicates that performance-approach goals in all conditions are significant positive predictor of academic achievement. Harackiewicz, Barron, Pintrich, Elliot, and Thrash (2002) and Wolters (2004) also found the same relationship of the performance-approach goals with academic achievement.

In the present study, mastery goals have been found to be unrelated with the academic achievement. Similar results have been reported by Harackiewicz, Barron, Carter, Lehto, and Elliot (1997). They found that there is no relation between mastery goals and academic achievement. Elliot, McGregor, and Gable (1999) also supported these findings. According to these researches, mastery goals are found unrelated to academic performance and achievement. According to Shih (2005), the individuals having mastery goals are more interested in mastering the material and increasing their competencies than preparing the material for exams. Further, they see the success in terms of how much they have learnt rather than tangible outcomes of their efforts. Therefore, it is not surprising to see that these goals are not related to achievement in academic situation.

Results are contrary to the second hypothesis of the present study as sociability was found as a non significant predictor of academic achievement (See Table 2). Cultures promote sociability in a way that individuals develop conviviality in themselves. The practice for being sociable is started when the child is in mother's lap as he is encouraged to smile for other people. In many similar ways, sociability is reinforced in the children. As they enter in adolescence, they carry on this very behavior. Therefore, sociability is equally important for high

achievers and low achievers hence, there is found no differences between them with relevance to sociability. The findings of the present study are consistent with Chamorro-Premuzic and Furnham's research (2003), which reported that extraversion, was not related to exam performance and was unrelated to academic achievement.

The results of independent sample t-test support our third hypothesis, which stated "academic achievement will be higher among girls than in the boys" (See Table 3). Although in countries like Pakistan, there are fewer facilities for girls with relevance to education, however, they mostly outperform boys in academic settings. One pertinent explanation of this finding is reflected in the relationship of gender, achievement goals, and academic achievement. Girls are more likely to adopt performance achievement goals and performance achievement goals have been found to be the significant predictors of academic achievement (Fibally, Chan & Lai, 2005; Phan, 2008). Hence, girls could be high achievers in their academics as they approach their studies with performance approach goals. Traditionally, they were expected to outperform boys in the subjects which were expected to be relevant to their stereotypes e.g. in reading or vocabulary etc (McKenna, Kear, & Ellsworth, 1995). The situation has been changed these days and girls are found performing better in the subjects which have been stereotypically associated with boys e.g. mathematics (NAEP 2000 Mathematics Assessment; U.S. Department of Education, 2001). Similar results have been found by Bruni et al. (2006) who found that the academic achievement of girls is significantly higher than that of boys, which is again consistent with the results of present study. Yousefi, Mansor, Juhari, Redzuan and Talib (2010) reported similar results in adolescent boys and girls where girls outperformed boys in academic achievement.

The fourth hypothesis of the study suggested that the level of performance-approach goals would be higher in girls as compared to boys. The hypothesis has been supported by the results (see Table 3). Performance approach goals positively predict academic achievement and girls are high in academic achievement. Therefore, this finding provides a clue as to why girls are high performers in academics. This finding makes it lucid that girls are high academic achievers because they approach their studies with performance approach goals.

Furthermore, in Pakistani culture, girls find fewer opportunities of studies especially those of higher studies. When they find such opportunities, they strive to achieve best from institution so that they could not be blamed for wasting these opportunities. They become more obsessed with the grades, since our society does not give importance to the implicit, intangible outcomes. One has to show the success in tangible form. In order to prove their abilities the girls have to adopt strategies, hence they adopt performance-approach goals. One reason behind this might be seen in terms of changing patterns of society. Education and media have changed people's mind with regard to gender differences in career orientation. These days, girls are found outperforming boys even in the jobs, which were once considered male-specific. The girls are new warriors in the battle of job seeking; and in order to prove their capabilities they adopt those performance approach, which help them win the war.

Finally, our education system, classroom environment, teaching styles and examination system; all emphasize the performance-approach goals for achievement of success. As the girls find it inevitably necessary to achieve success, they find no other way except adopting these goals.

Results are also consistent with the last hypothesis of the present study, which stated

that the boys would be more sociable than the girls (see Table 3). The practices of socialization and gender roles in Pakistani society emphasize modesty, shyness, and dependence in the stereotypical conception of good girl. Girls are not supposed to talk to strangers; they are not allowed to travel from one place to another without any male relative. The opportunities of their recreation are limited to indoor resources such as television. In contrast, boys are encouraged to be outspoken, outgoing, and independent. They have stronger ties with their peer groups and have far more opportunities to be with someone who are not their family members. These characteristics of our society may cultivate our boys as more sociable than our girls. These results are also consistent with Lynn and Martin's (1997) meta analytic findings where men were found more sociable than women in 30 countries.

Conclusion

In conclusion, the present study has expanded our knowledge about the relationship among gender, academic achievement, achievement goals, and sociability. It has yielded some important insights into the pattern of relationships, which are unique to Pakistani culture. For instance, most of the studies on achievement goals report that men are higher on performance achievement goals (Ee, 1998; Roeser, Midgley, & Urdan, 1996), yet the findings of the present study has elucidated that girls are higher on performance achievement goals. The finding that girls are high achievers in academics is also encouraging for shunning off the old stereotypical male chauvinistic beliefs and supports the feministic notions that women are not only equivalent to men rather they are ahead of men in many fields, so equal opportunities in education and careers must be provided to both genders.

References

Ablard, K., & Lipschultz, R. E. (1998). Self-regulated learning in high achieving students: Relations to advanced reasoning, achievement goals, and gender. *Journal of Educational Psychology, 90*(1)*,* 94–101.

Aluja, A., & Blanch, A. (2004). Socialized personality, scholastic aptitudes, study habits, and academic achievement: Exploring the link. *European Journal of Psychological Assessment, 20*(3), 157–165.

Arias, J. F. (2004). Recent perspectives in the study of motivation: Goal orientation theory. *Electronic Journal of Research in Educational Psychology, 2*(1), 35–62.

Brdar, I., Rijavec, M., & Loncaric, D. (2006). Goal orientation, coping with school failure and school achievement. *European Journal of Psychology of Education, 21*(1), 53-70.

Bruinsma, M. (2004). Motivation, cognitive processing and achievement in higher education. *Learning and Instruction, 14*(6), 549–568.

Bruni, O., Ferini-Strambi, L., Russo, P. M., Antignani, M., Innocenzi, M., & Ottaviano, P., (2006). Sleep disturbances and teacher ratings of school achievement and temperament in children. *Sleep Medicine, 7*(1), 43–48.

Buss, A. H., & Plomin, R. (1984). *Temperament: Early developing personality traits*. Hillsdale, New Jersey: Lawrence Erlbaum.

Caliguri, P. M. (2000). Selecting expatriates for personality characteristics: A moderating effect of personality on the relationship between host national contact and cross-cultural adjustment. *Management International Review, 40*, 61–80.

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology, 44*(6), 473–490.

Caro, D. H. (2009). Socioeconomic status and academic achievement trajectories from childhood to adolescence. *Canadian Journal of Education, 32*, 558–590.

Chamorro-Premuzic, T., & Furnham, A. (2005). *Personality and intellectual competence.* New Jersey: Lawrence Erlbaum Associates.

Chan, K., & Lai, P. (2005). Revisiting the trichotomous achievement goal framework for Hong Kong secondary students: a structural model analysis. *The Asia Pacific Education Researcher, 16*, 3–22.

Chen, X., Rubin, K. H., & Li, D. (1997). Relation between academic achievement and social adjustment: Evidence from Chinese children. *Developmental Psychology, 33*, 518–525.

Coleman, J. S. (1966). *Equality of educational opportunity* (Report No. OE-3800). Washington, DC: National Center for Educational Statistics.

Conroy, D. E., & Elliot, A. J. (2004). Fear of failure and achievement goals in sport: Addressing the issue of the chicken and the egg. *Anxiety, Stress and Coping, 17*, 271–285.

Coplan, R. J., & Rubin, K. H. (1998). Exploring and assessing nonsocial play in the preschool: The development and validation of the preschool play behavior scale. *Social Development, 7,* 72–91.

Donahue, P. L., Voelkl, K. E., Campbell, J. R., & Mazzeo, J. (1999). *NAEP 1998 reading report card for the nation* (NCES Report No. 1999–459). Washington, DC: National Center for Educational Statistics, Office of Educational Research and Improvement.

Ediseth, A. (2002). The relationship between intelligence, approaches to learning and academic achievement. *Scandinavian Journal of Educational Research, 46*, 219–230.

Ee, J. L. C. (1998). *Relationships among teachers' classroom orientations, strategy based instruction, and students' goal orientations, self-regulated learning and achievement,* Unpublished doctoral dissertation, The University of Newcastle. Australia.

Elliot, A. J., & Church, M. A. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In: M. Maehr, & P. Pintrich. (Eds.), *Advances in Motivation and Achievement,* Vol. 10 (pp. 143–179). JAI Press, Stamford, CT.

.Elliot, A. J., & Church, M. A. (2003). A motivational analysis of defensive pessimism and self – handicapping. *Journal of Personality, 71*, 369–396.

Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A meditation analysis. *Journal of Personality and Social Psychology, 70,* 461–475.

Elliot, A. J., & McGregor, H. A. (2001). A 2*2 achievement goal framework. *Journal of Personality and Social Psychology, 80*, 501–511.

Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology, 82*, 804–818.

Elliot, A. J., McGregor, H. A. & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology, 91*, 549–563.

Else-Quest, N. M., Hyde, J. S., Goldsmith, H. H., & Hulle, C. A. V. (2006). Gender differences in temperament: A meta-analysis. *Psychological Bulletin, 132*, 33–72.

Englund, M. M., Luckner, A. E., Whaley, G. J. L., & Egeland, B. (2004). Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology, 96*, 723–730.

Eran, A. (2009). Examining the teacher efficacy and achievement goals as predictors of Turkish student teachers' conception about teaching and learning. *Australian Journal of Teacher Education, 34*, 69–87.

Feingold, A. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin, 116*, 429–456.

Feingold, A. (1998). Gender stereotyping for sociability, dominance, character and mental health: Meta-analysis of research with the bogus stranger paradigm. *Genetic, General and Social Psychology Monograph, 124*, 253–270.

Gough, H. G. (1957). *Manual for the California Psychological Inventory.* Palo Alto, Calif.:

Consulting Psychologists Press.

Gough, H. G. (1984). A managerial potential scale for the California Psychological Inventory. *Journal of Applied Psychology, 69*, 233–240.

Gough, H. G. (1990). Testing for leadership with the California Psychological Inventory. In Clark, K. E., & Clark, M. B. Eds, *Measures of leadership* (pp. 355– 379). West Orange, NJ: Leadership Library of America.

Green, K. D., Forehand, B., Beck, S. J., & Vosk, B. (1980). An assessment of the relationship among measures of children's social competence and children's academic achievement. *Child Development, 51*, 1149–1156.

Greene, B. A., Miller, R. B., Crowson, H. M., Duke, B. L., & Akey, K. L. (2004). Predicting high school students' cognitive engagement and achievement: Contributions of classroom perceptions and motivation. *Contemporary Educational Psychology, 29*, 462–482.

Grifford, R., & Gallagher, T. M. B. (1985). Sociabily: Personality, Social Context, and Physical Setting. *Journal of Personality and Social Psychology, 48*, 1015–1023.

Guastello, D. D. & Guastello, S. J. (2002). Birth category effect on Gordon personal profile variable. *JASNH, 1*, 1-7.

Guglielmi, R. S. (2008). Native language proficiency, English literacy, academic achievement, and occupational attainment in limited-English-proficient students: A latent growth modeling perspective. *Journal of Educational Psychology, 100*, 322–342.

Halpern, D. F. (1992). *Sex differences in cognitive abilities.* Hillsdale, NJ: Erlbaum.

Harackiewicz, J. M., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002). Revision of Achievement Goal Theory: Necessary and Illuminating. *Journal of Educational Psychology, 94*, 638–645.

Harackiewicz, J. M., Barron, K., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Predictors and consequences of achievement goals in the college classroom: Maintaining interest and making the grade. *Journal of Personality and Social Psychology, 73*, 1284–1295

Hsieh, C. (1998). *Relating parenting styles and children's temperament to behavioral adjustment and academic achievement of Taiwanese children,* Unpublished doctorial thesis, Texas Technical University.

Karimi, A. (2000). *The relationship between anxiety, creativity, gender, academic achievement and social prestige among secondary school,* Unpublished thesis, University of Shiraz, Shiraz.

Lynn, R., & Martin, T. (1997). Gender differences in extraversion, neuroticism and psychoticism in 37 nations. *The Journal of Social Psychology, 137*, 369–373.

Mahmood, K. (2003). *The relationship of personality factors and academic achievement in Pakistan.* Unpublished doctorial dissertation, Bahria University, Islamabad.

Masten, A., Coatsworth, J. D., Neemann, J., Gest, S. D., Tellegen, A., & Garmezy, N. (1995). The structure and coherence of competence from childhood through adolescence. *Child Development, 66*, 1635–1659.

McCall, R. B. (1994). Academic underachievers. *Current Directions in Psychological Science, 3,* 15–19.

McKenna, M.C., Kear, D.J., & Ellsworth, R.A. (1995). Children's attitudes toward reading: A national survey. *Reading Research Quarterly*, *30*, 934–956.

Middleton, M., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory. *Journal of Educational Psychology, 89*, 710–718.

Naderi, H., Abdullah, R., Hamid, T. A., Sharir, J., & Kumar, V. (2009). Intelligence, Creativity and Gender as Predictors of Academic Achievement among Undergraduate Students. *Journal of American Science*, *5*, 8–19.

Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*, 328–346.

Petrides, K. V., Frederickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behavior at school. *Personality and Individual Differences*, *36,* 277–293.

Phan, H. P. (2008). Achievement goals, the classroom environment, and reflective thinking: A conceptual Framework. *Electronic Journal of Research in Educational Psychology, 16*, 571–602.

Pintrich, P. R. & Schunk, D. H. (1996). *Motivation in education: Theory, research and applications*. Englewood Cliffs, NJ: Merrill.

Rode, J., Mooney, C., Arthaud-Day, M., Near, J., Baldwin, T., Rubin, R., & Bommer, W. (2007). Emotional intelligence and individual performance: Evidence of direct and moderated effects. *Journal of Organizational Behavior,* 28, 399–421.

Roebkin, H. (2007). *Multiple goals, satisfaction, and achievement in university undergraduate education: A student experience in the research*. Unpublished research, University of California, Berkeley.

Roeser, R. W., Midgley, C., & Urdan, T. C. (1996). Perceptions of the school psychological environment and early adolescents' psychological and behavioural functioning in school: The mediating role of goals and belonging. *Journal of Educational Psychology, 88,* 408–422.

Sanson, A., Hemphill, S. A., & Smart, D. (2004). Connections between temperament and social development: A review. *Social Development, 13,* 142–170.

Santrock, J. W. (1999). *Life-span development* (7th ed.). Boston: McGraw-Hill.

Shih, SS. (2005). Taiwanese six graders' achievement goals and their motivation, strategy use and grades: An examination of the multiple goal perspective. *The Elementary School Journal, 106*, 39–58.

Spence, J.T.(1983). *Achievement and achievement motives: Psychological and sociological approach*. San Francisco: Freeman.

U.S. Department of Education. (2001). *The nation's report card: Mathematics highlights 2000* (NCES 2001–518). Washington, DC: National Center for Education Statistics, Office of Educational Research and Improvement.

Was, C. (2006). Academic achievement goal orientation: Taking another look. *Electronic Journal of Research in Educational Psychology, 10*, 529–550.

Watkins, M. W., Lei, P. W., & Canivez, G. L. (2007). Psychometric intelligence and achievement: A cross-lagged panel analysis. *Intelligence, 35*, 59–68.

Weiner, B. (1990). History of motivational research in education. *Journal of Educational Research, 82*, 616–622.

Wentzel, K. R., & Asher, S. R. (1995). The academic lives of neglected, rejected, popular, and controversial children. *Child Development, 66*, 754–763.

Wolters, C. (2004). Advancing achievement goal theory: Using goal structure and goal orientation to predict students' motivation, cognition, and achievement. *Journal of Educational Psychology, 96*, 236-250.

Yousefi, F., Mansor, M. B., Juhari, R. B., Redzuan, M., & Talib, M. A. (2010). The relationship between gender, age, depression and academic achievement. *Current Research in Psychology, 6*, 61–66.

Irsa Fatima, Department of Psychology, University of Sargodha, Sargodha, Pakistan

Saba Ghayas, Department of Psychology, University of Sargodha, Sargodha, Pakistan

Adnan Adil, Lecturer, Department of Psychology, University of Sargodha, Sargodha, Pakistan. Email: livespirit786@yahoo.com