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Self-efficacy as Predictor of Motivational Goals in University Students

Sadia Niazi, Adnan Adil, and Najma Iqbal Malik
University of Sargodha, Sargodha, Pakistan

The present study aimed at investigating self-efficacy as a predictor of achievement goals. In addition, gender differences in achievement goals and self-efficacy were also the focus of interest. The sample of 200 studnets was conveniently drawn (100 boys and 100 girls) from different departments of University of Sargodha. Achievement Goals Questionnaire and General Self-efficacy Scale were used to measure achievement goals and self-efficacy, respectively. Correlation matrix demonstrated that mastery and performance achievement goals were positively correlated with self-efficacy, whereas performance avoidance goals were not related to self-efficacy. Regression analysis revealed that self-efficacy significantly predicted mastery goals and performance approach goals. Furthermore, t-test revealed significant gender differences in performance approach goals and non significant gender differences in performance avoidance goals and mastery goals. Implications of the study and suggestions for future research have also been discussed.

Keywords: achievement goals, self-efficacy, performance-approach goals, performance-avoidance goals, mastery goals.

Self-efficacy is an important factor in the accomplishment of goals because people with confidence in their capabilities are likely to approach difficult tasks as challenges and are motivated to master them rather than avoid them. The present study has investigated the potential role of self-efficacy in various approaches towards goal attainment. Self-efficacy refers to belief in oneself and one's personal skills; a person who perceives herself/himself in a positive way will be more motivated than a person who anticipates herself/himself as a failure (Was, 2006). Austin and Vancouver (1996) proposed that self-efficacy plays a very important role in the goal choice and task preference. When a person has confidence in his skills, with no self-doubt, he will possess a sense of being and be sufficiently prepared for a challenge. Thus, he becomes more motivated towards achievement**.** Self-efficacy levels can enhance or obstruct motivation. People with high self-efficacy choose to perform more challenging tasks; they set higher goals for themselves and stick to them. Actions are reshaped in thoughts, and people anticipate either optimistic or pessimistic scenarios in line with their level of self-efficacy (Kumar & Lal, 2006).

Goals are defined as the end towards which one's effort is directed (Was, 2006). Goals serve as a course to the destination. When a person wants to do anything, he or she sets some behavioural intentions for the success. These intentions are referred to goals. Goal-oriented theorists define achievement goals as concrete cognitive representations that focus on a particular type of performance and these behavioural intentions are very much affected by the level of self-efficacy, which is belief in one's own self (Elliot &Church, 2003). Goal theory researchers generally agree that mastery goals are more productive than performance goals and approach goals are more productive than avoidance goals (Grant & Dweck, 2003). Liu and Schallert (2006) proposed that according to goal theory, goal orientation is very much related to individual's beliefs and expectations about their capabilities to perform successfully i.e., individual's self-efficacy. Mohsenpour, Hejazi and Kiamanesh (2004) stated that levels of self-efficacy play a very important role in predicting the motivational goals. They found that students who adopted mastery goal orientation and used learning strategies such as organizing, planning, and

monitoring in performing difficult tasks, were those who had a higher self-efficacy and showed more persistence in performing their difficult tasks. On the contrary, students who were low on self-efficacy were more likely to demonstrate avoidant behaviour toward performing difficult tasks. Research findings further revealed that students who adopted avoidance approach goals orientation showed less persistence in performing difficult tasks. In another study, Pajares and Graham (1999) found that performance goals and mastery goals were associated positively with self-efficacy but performance-avoidance goals were associated negatively with self-efficacy. Explaining the relationship between self-efficacy and goals, Elliot and Church (1997) concluded that mastery goals facilitated intrinsic motivation, performance-approach goals enhanced graded performance, and performance avoidance goals proved conflicting to both intrinsic motivation and graded performance. In lieu with the aforementioned literature, the present study hypothesized that self-efficacy would positively predict performance approach goals and mastery goals whereas it would not predict performance avoidance goals.

Pertinent literature also highlights significant gender differences in self-efficacy. Various researchers have reported higher levels of self-efficacy in men than women (Matsui ,1994; Lent, Lopez, & Bieschke, 1991; Elliot &Church, 2003).These gender differences in self-efficacy are attributable to different environmental, socio-cultural, and inherited factors. For instance, women are very much affected by family appraisal and mostly attribute failure to themselves and success to external factors. In different cultures, women's role vary significantly because in some cultures, their freedom is appreciated whereas in others, the same is condemned (Schwarzer, 1994). Thus, the second hypothesis of the present study proposes that men would be more self-efficacious than women.

Literature about the relationship between gender and motivational goals is somewhat controversial. Research evidence is mixed as some studies suggest boys are more performance-oriented than girls (Ee, 1998; Roeser, Midgley & Urdan, 1996), whereas other studies indicate an opposite pattern implying that girls are more likely to adopt mastery goals whereas boys are more inclined to espouse performance avoidance goals (Brdar, Rijavec & Loncaric, 2006). To make the matter more complex, there is empirical evidence that gender has no effect on achievement motivation. For instance, Phan (2008) found no gender differences in achievement goals of the students. Keeping in view the current educational scenario in Pakistan where girls are overwhelmingly dominating boys both in terms of admissions to prestigious academic institutions and higher GPAs, the present study hypothesized that girls would be more likely to adopt performance approach goals as compared to boys.

Method

Sample:

The sample consisted of 200 students, equally drawn from arts, social sciences (*n*=100), and natural sciences (*n*=100) in the departments of University of Sargodha through convenient sampling. The sample comprised equal number of boys and girls studying in first, second, third, and fourth semesters of BS programs. The mean age of the participants was 21.5 ranging from 21 to 29 years with standard deviation of 3.03 years.

Instruments:

Achievement Goal Questionnaire (AGQ): It was developed by Elliot and Church (1997) was used to measure achievement goals. AGQ consists of 18 items and it measures three types of goals including performance–approach goals (6 items), mastery goals (6 items), and performance–avoidance goals (6 items). Response format is based upon 7-point rating scale where 1 = strongly disagree, 2= slightly disagree, 3= disagree, 4= neutral, 5= agree, 6= slightly agree, 7= strongly agree. The reported alpha coefficient of reliability for this scale is 0.92 (Elliot & Church,1997) whereas alpha coefficients for various subscales including mastery, performance–approach and performance–avoidance subscales are 0.89,0.91, and 0.77, respectively (Chan & Lai, 2005).

General Self Efficacy Scale (Schwarzer& Jerusalem, 1995): It was used in order to measure

self-efficacy level of participants. It consists of ten items and responses are made on a 4-point scale where 1 = Not at all true and 4 = Exactly true. The highest possible scores of this scale are 40 and lowest possible scores are 10. The higher the scores higher will be level of self-efficacy in the respondents. The reported alpha coefficient of reliability for this scale is 0.80 and its criterion-related validity is documented in numerous correlation studies where positive coefficients were found with favourable emotions, dispositional optimism, and work satisfaction (Rimm& Jerusalem, 1999).

Procedure:

The permission for data collection was sought from departmental heads and after that students were personally contacted in their class rooms and were briefed about the purpose of research. Students' informed consent was taken and questionnaires were handed over to those who volunteered to participate in the study. The participants were requested to give answers honestly and they were ensured of the confidentiality of their responses. The desired personal information was obtained on demographic sheet. There was no restriction of time for the completion of scales. At the end, participants of the study were apprised for their cooperation and support in the study.

Results

The alpha coefficients demonstrated that both self-efficacy and achievement goal scale and its subscales are consistent and reliable measures of their corresponding constructs for the sample of the present study (see Table 1). The zero-order correlations among various variables of the present study indicated that various types of goals and self-efficacy are significantly correlated with one another. The correlations were in the expected direction and within the anticipated range of magnitude (see Table 1).

Table 2 portrayed that there are significant gender differences in performance approach goal. Furthermore the values of Mean and SD of girls (*M*= 31.30, *SD* = 7.80) and boys (*M*= 27.83, *SD* = 7.22) are reflecting that girls are more performance oriented than boys (t = 2.60, p< .05).The table also showed that there are non-significant differences in mastery goals, performance avoidance goals and self-efficacy.

Table 3 presented regression analysis which was conducted in order to discern the percentage of variance in various goals that is attributable to self-efficacy. The findings indicated that self-efficacy explained a variance of 6% in performance approach gaols and a variance of 11% in mastery goals. Self-efficacy did not predict performance avoidance goals.

Table 1. Summary of Intercorrelations, Alpha Coefficients, Means, and SD for Scores on Achievement Goal Questionnaire, its subscales and Self-efficacy Scale (N = 200)

Scales	á	*M*	*SD*	PAPG	MASG	PAVG	SE
AGQ	.73	86.39	18.96	.87**	.84**	.76**	.26**
PAPG	.85	29.47	8.14	__	.63**	.52**	.24**
MASG	.62	29.59	7.88	__	__	.43**	.32**
PAVG	.56	27.32	6.78	__	__	__	.05**
SE .81	28.95	4.71	__	__	__	__	

**p<.01

Note. PAPG = Performance Approach Goal Subscale of Achievement Goal Questionnaire; MASG = Mastery Goals Subscale of Achievement Goal Questionnaire; PAVG = Performance Avoidance Goals Subscale of Achievement Goal Questionnaire; SE = General Self-efficacy Scale. For all scales, higher scores are indicative of more extreme responding in the direction of the construct assessed.

Table 2. Gender Differences in Different Types of Achievement Goals and Self-efficacy (N= 200)

	Girls		Boys			95% CI		Cohen's d
Variables	M	SD	M	SD	t(198)	LL	UL	
PAPG	31.30	7.80	27.83	7.22	3.10**	-0.57	1.50	0.46
MASG	30.73	8.36	28.57	7.22	1.95	-0.79	1.35	0.28
PAVG	27.68	7.24	27.02	6.33	.69	-0.84	1.04	0.09
SE	29.27	4.44	28.68	4.97	.88	-0.52	.78	0.13

p < .01** *Note.* PAPG = performance approach goal; MASG = mastery goals; PAVG = performance avoidance goals; SE = general self-efficacy.

T**able 3. Regression Analysis for Predicting Motivational goals (N = 200)**

	PAPG			MASG			PAVG		
Variables	B	SE	*β*	B	SE	*β*	B	SE	*β*
Constant	7.12	3.49		13.76	3.29		25.06	2.99	
Self-efficacy	.42	.12	.25***	.54	.11	.32***	.08	.10	.05
R^2	.06			.11			.003		
F	12.85***			23.72***			.58		

***p<.001 *Note.* PAPG = performance approach goal; MASG = mastery goals; PAVG = performance avoidance goals; SE = general self-efficacy.

Discussion

The primary objective of this study was to examine the predictive value of self-efficacy in relation to achievement goals. The present study also explores gender differences in self efficacy and motivational goals. As far as the prediction of achievement goals are concerned, self-efficacy turned out to be a significant predictor of mastery goals and performance approach goals whereas it did not predict performance avoidance goals. Thus, the findings of the present study supported our first hypothesis which stated that self-efficacy would positively predict performance approach goals and mastery goals whereas it would not predict performance avoidance goals. These results are consistent with the earlier research conducted by Skaalvik (1997) and Wolters, Yu, and Pintrich (1996) who found a significant relationship of self-efficacy with performance approach goals and mastery goals and a non-significant relationship with performance avoidance goals.

Self-efficacy can be a pertinent predictor of demonstrating ability (performance-approach) and developing ability (mastery) because self-efficacy influences choice of activities, effort, and persistence. Students who espouse mastery goals are concerned with acquiring skills necessary to obtain the goals whereas those who set performance approach goals are primarily concerned with how competent they appear in front of other people. In both the cases, students' level of self-efficacy is an influential factor in achieving their goals. Researchers have consistently found that students who adopt mastery goals tend to have higher self-efficacy and higher achievement (Middleton & Midgley, 1997; Midgley & Urdan, 1995; Pajares, Britner&Valiante, 2002), while students who have performance-avoidance goals tend to have lower self-efficacy and have less challenge-seeking behaviours. However the research addressing performance-approach goals has had more discrepancies reported. Some researchers report non-significant relationships between performance-approach goals and self-efficacy (Middleton & Midgley, 1997), others have found a positive relationship between this type of goal orientation and self-efficacy (Bong, 2001; Wolters, Yu,& Pintrich, 1996). Lorsbach and Jinks (1999) suggested that unlike most personal beliefs with highly internalized conceptual structures, self-efficacy can be accessible and affect learning contexts. Therefore, providing mastery-oriented feedback, instead of normative evaluation, may increase students' optimism about their competence and improve their self-efficacy beliefs.

The present study has also explored gender differences in achievement goals and the results

revealed that girls are significantly more likely to have performance approach goals as compared to boys. Thus, the second hypothesis of our study is also supported. Performance approach goals pertain to the desire to be appreciated and to appear competent in front of other people. Similar results have also been reported by Ryan and Pintrich (1997) who found that the motive to learn and outperform would be much stronger within girls, if they wished to get educated and excel in their studies and career. Performance goals are associated with students' desires to compare themselves with others, to perform relative to their peers and to receive external reinforcement and rewards whether learning has been achieved. In our culture, girls are not much appreciated until they show an outstanding performance in their academics because Pakistani society is male-dominated where trivial achievements of boys are well celebrated. Therefore, in order to be at par with the boys, girls have to set performance approach goals in their academic careers to attain excellence in their studies that may bring them further opportunities of higher studies, which otherwise may have been denied to them. This line of reasoning has also been empirically supported by Niemivirta (2004) who found that girls are significantly higher on achievement goals orientation and show higher effort and greater levels of mastery orientation than boys.

Empirical findings by Bouffard, Boisvert, and Vezeau (2001), and Anderman (1999) are also in line with the present study who reported that girls in college were more performance-oriented than boys whereas no differences were found in mastery goals across the genders. Hyde Fennema and Lammon (1990) also demonstrated non-significant gender differences in mastery goals and performance avoidance goals. Pajares and Valiante (2001) also found non-significant differences across gender in performance avoidance gaols and mastery gaols. Similarly, Hinkley, McInerney and Marsh (2001) and Wai, Miranda, Tak, and John (2002) reported non-significant differences across gender groups regarding their mastery goals. More recently, Rashidi and Javanmardi (2012) found non-significant gender differences in performance avoidance goals and mastery goals.

Gender differences in self-efficacy were also explored in the present study and our findings indicated that boys and girls do not significantly differ in terms of self-efficacy. Thus, our second hypothesis which stated that men would be more self-efficacious than women has been rejected. Similar findings have also been reported by Hermann (2005) and Busch(1995) who reported non-significant gender differences in self-efficacy.

Limitations and Suggestions

An important limitation of this study pertains to the self-report data which might have introduced common method variance in the findings of the present research. Though the magnitude of correlation coefficients indicates that there is no spurious correlation among the variables of this study, this does not rule out the chance of common method variance. Future studies, should therefore, collect data from multiple sources. Furthermore, the cross-sectional design of this study does not allow us to infer causal relationship between self-efficacy and various types of goals. It is quite plausible that there could be a bidirectional relationship between self-efficacy and goals or goals could be the predictors of one's self-efficacy. Longitudinal research design may disentangle the direction of influence between self-efficacy and different types of goals. Various important variables like students' academic achievement and their personal disposition might have also been influential in terms of the relationship between self-efficacy and goals. Future research should investigate how different types of goals and self-efficacy of students may relate with their academic achievement.

Conclusion

The present study has elucidated self-efficacy as significant predictor of performance approach goals and mastery goals set by the students. It implies that self-efficacious students are more likely to espouse performance approach goals or mastery goals which in turn may help them succeed academically. Another important finding of this research explicates that girls are more likely to have performance approach goals as compared to boys. This might be one of the reasons because of which girls outshine boys in academic achievement in the Pakistani society.

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Sadia Niazi, Lecturer, Department of Psychology, University of Sargodha, Sargodha, Pakistan

Adnan Adil, Assistant Professor of Psychology, Department of Psychology, Ghazali Block, University of Sargodha, Sargodha, Pakistan.Email: livespirit786@yahoo.com

Najma Iqbal Malik, PhD, Assistant Professor, Department of Psychology, University of Sargodha, Sargodha, Pakistan