

Relationship between Self-Efficacy, Conscientiousness and Academic Motivation among Undergraduates

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Abstract

The present study was envisioned to explore the relationship between self-efficacy, academic motivation, and conscientiousness among purposively selected university and college undergraduates (N = 200). The Self-efficacy Scale (Schwarzer & Jerusalem, 1995), Academic Motivation Scale (Robert et al., 1993) and Conscientiousness Scale (Paul, Costa, Robert & McCare, 1985) were used to measure the study constructs. Pearson correlation showed significant positive relationship between self-efficacy, conscientiousness, and academic motivation, whereas multiple regression analysis confirmed the role of self-efficacy and conscientiousness as positive predictors of academic motivation among students. t-test analysis further revealed that female students have significantly higher academic motivation than male students. Study implications and limitations have also been discussed.

Keywords: Self-efficacy, academic motivation, conscientiousness.

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Introduction

Self-efficacy and personality types are two prominent constructs, which seems to play vital role in academic motivation. The belief of personal self-efficacy is most important self-influence mechanism. Self-efficacy is valuable power which efficiently organizes the cognitive, social, emotional and behavioral skills of humans to achieve different subjects (Bandura, 1997). Self-efficacy is the degree of one's own capability to complete tasks and reach goals (Ormrod, 2006). It is one of the strongest factors predicting performance in domains as diverse as sports, business, and education. In academic settings, self-efficacy is a strong predictor of performance (Klassen, Krawchuk & Rajani, 2008). Self-efficacy, also called perceived ability, refers to the confidence people have in their abilities for success in a given task. Efficacy beliefs are basically task and domain specific and based on perceived capabilities (Zimmerman & Cleary, 2006).

Individuals who possess a high degree of self-efficacy are more likely to attempt challenging tasks, to persevere longer at them, and to exert more effort in the process. If very efficacious individuals fail, they attribute the consequence to a lack of struggle or an opposing environment (Bandura, 1986). Self-efficacy theory proposes that individuals acquire information to evaluate efficacy from their performance accomplishments, observational experiences, forms of persuasion, and physiological indexes. A person can assess his or her efficacy through his/her performance. Achievements increase efficacy and disappointments decrease it, but after developing firm sense of efficacy, a failure may not have much impact (Bandura, 1986). According to Bandura (1997) self-efficacy beliefs establish the key factor of human activity. Self-efficacy beliefs motivate individual towards successful behaviors and helps individual to produce desired outcomes. According to Self-efficacy theory it is stated that the level and strength of self-efficacy will decide whether or not a behavior will be started, how much effort will result, and how long the effort will be continued in the face of hitches (Landry, 2003).

Academic motivation is very important with reference to students, which makes them able to successfully complete different assignments and assigned goals for their degree qualification (Mohamadi, 2006). So motivation defines the reasons behind people's behavior and determines why they behave in a particular way. Motivated behaviors are energetic, oriented and permanent (Omidiyan, 2006 as cited in Amrai, Motlagh, Zalani & Parhon, 2011). Academic Motivation is an inner drive that leads a student's behavior toward the fulfillment of a goal i.e., academic success. Motivation is a goal-directed behavior and indicates the willingness of the student to exert high levels of effort toward achieving goals. Motivation influences how and why people learn as well as their performance. Bedel (2016) found that academic motivation was significantly related to academic self-efficacy. In educational perspective, motivation has a multi-

dimensional structure which is correlated with learning and academic motivation (Amrai, Motlagh, Zalani & Parhon, 2011). Motivation is generally regarded as the drive to achieve targets and the process to maintain the drive (Bandura, 1986). Motivation provides an important foundation to complete cognitive behavior, such as planning, organization, decision-making, learning, and assessments (Cerino, 2014).

In the current literature Five-factor model of personality is very important model for examining personality traits and academic achievement (Costa & McCrae, 1992; McCrae & Costa, 1997). Within this model, the Big Five personality factors of Extraversion, Neuroticism, Openness to Experience, Agreeableness and Conscientiousness are thought to include all the more fine personality traits existing at lower levels of the personality hierarchy. Extraversions possess the narrower traits of sociability and assertiveness. Neuroticism tends to experience negative emotions such as guilt and pessimism, and is characterized by low self-esteem. Openness to Experience tends to be open-minded, less conservative, and possess active imaginations. Agreeableness reflects tendencies to be sympathetic, altruistic, and helpful, Conscientiousness is associated with responsibility, persistence, trustworthiness, and being purposeful (Cherry, 2018).

During the two decades since Bandura first introduced the construct, the predictive and mediational role of self-efficacy has received extensive support from a growing body of findings from diverse fields (Bandura, 1997) and Stajkovic and Luthans (1998) for meta-analysis of research on the relationship between self-efficacy beliefs and achievement outcomes. The depth of this support prompted Graham and Weiner (1996) to conclude that self-efficacy has proven to be a more consistent predictor of behavioral outcomes than have other self-beliefs. Self-efficacy has also received increasing attention in educational research, primarily in studies of academic motivation (Pintrich & Schunk, 1995).

Schunk (1989) discussed how self-efficacy might operate during academic learning. At the start of an activity, students differ in their beliefs about their capabilities to acquire knowledge, perform skills, master the material, and so forth. Initial self-efficacy varies as a function of aptitude (e.g., abilities and attitudes) and prior experience. Such personal factors as goal setting and information processing, along with situational factors (e.g., rewards and teacher feedback), affect students while they are working. From these factors students derive cues signaling how well they are learning, which they use to assess efficacy for further learning. Motivation is enhanced when students perceive they are making progress in learning. In turn, as students work on tasks and become more skillful, they maintain a sense of self-efficacy for performing well.

Of the Big Five personality traits, only conscientiousness has consistently been associated with academic motivation (Nofle & Robins, 2007; O'Connor &

Paunonen, 2007). In 2002, a research was carried out by Pajares and Schunk to find the relationship between Self-efficacy and people's achievements (Pajares & Schunk, 2002). Significant positive relationship was found among the variables. In 2004 a research was carried out by A'rabian to find relationship between students' self _efficacy beliefs and their mental health and academic achievement. Positive relationship was found among the self- efficacy and academic achievement (Arabian, 2004). Asgharnezhad (2004) as well researches to find the relationship between students' self-efficacy and their academic achievements. Positive relationship was found among the variables (Asqarnezhad, 2004). A vast amount of research was carried out by to found the relationship among conscientious and levels of academic success in university students. Significant positive relationship was found among the variables. (Bauer & Liang, 2003; Busato, Prins, Elshout, & Hamaker, 2000; Chamorro-Premuzic & Furnham, 2008; Chamorro-Premuzic & Furnham, 2003; Conard, 2006; Nofle & Robins, 2007; Phillips, Abraham, & Bond, 2003). In 2013 a research was carried on The Role of Motivation, Cognition, and Conscientiousness for Academic Achievement by Imhof and Spaeth-Hilbert (Imhof & Spaeth-Hilbert, 2013). Positive relationship was found among the variables. The relation between self-efficacy, motivation, and performance was found by Bandura the evidence is relatively consistent in showing that efficacy beliefs contribute significantly to the level of motivation and performance (bandura, 1997).

Self-efficacy has proven to be a more consistent predictor of behavioral outcomes than have other self-beliefs. Self-efficacy has also received increasing attention in educational research, primarily in studies of academic motivation (Pintrich & Schunk, 1995). Researches have also identified that among the five personality types, only conscientiousness personality type is associated with academic achievement and academic motivation (Nofle & Robins, 2007). After reviewing the literature it has been identified that multiple researches were carried out on the above variables in relation to other different variables, but no empirical study was found addressing the phenomena of “relationship between self-efficacy, academic motivation and conscientiousness” as well as not a single research was found which explores the role of self-efficacy and conscientiousness in the prediction of academic motivation in Pakistan. Therefore, recent study aims at exploring the relationship between self-efficacy and academic motivation as well as to uncover the role of conscientiousness and self-efficacy in predicting academic motivation among students.

The core goal of the study is to explore the “relationship between self-efficacy conscientiousness and academic motivation”. In order to achieve the objective following are the hypotheses of the study:

H1. There is positive relationship with academic motivation.

H2. There is positive relationship between self-efficacy and academic motivation.

- H3.** There is positive relationship between conscientiousness and self-efficacy.
- H4.** Self-efficacy and conscientiousness is predictors of academic motivation.
- H5.** Academic motivation is higher in female students as compare male students.

Method

Sample

The initial sample ($N = 200$) was selected with convenient sampling technique from Sargodha City. Sample was composed of equal numbers of male ($n = 100$) and female ($n = 100$) students.

Instruments

Academic motivation scale (Robert, Luc, Marc, Nathalie, Caroline & Évelyne, 1992-1993). It consist on 28 items it is 7-point scale. Total scores range from 28 to 196. High score indicate high level of academic motivation.

Conscientiousness scale (Paul, Costa, Robert & McCare, 1985). It consist on 60 items and measures five domains of personality i.e. Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness. In the current research only one subscale of NEO-FFI i.e., conscientiousness will be used. It is a five point scale: 1 = strongly disagree and 5 = strongly agree.

Self-efficacy scale (Schwarzer, & Jerusalem, 1995). It is 10 items scales. It is 4-point likert scale of self-efficacy Scores ranges from 10 to 40. High scores indicate high level of self-efficacy.

Procedure

The present study aims to explore the relation among university students. For this purpose students were selected from different public sector colleges and university of Sargodha. Informed consent was obtained from the participants before administering the questionnaires. Students were briefly informed about the purpose, significance, and rationale of the study. They were ensured that the information obtained will be kept highly confidential on behalf of the researcher that their personal identities will not be revealed. In the end, the participants were thanked for their cooperation in the research.

Results

Table 1: *Descriptive statistics, Alpha reliability coefficients and Pearson correlation among study variables (N = 200)*

Variables	<i>M</i>	<i>S</i>	<i>a</i>	1	2	3
1. AM	124.12	27.17	.90	-	.65*	.49*
2. Self-efficacy	24.10	6.54	.80		-	.34*
3.	35.23	5.09	.54			-

Note: AM = Academic motivation.

* $p < .001$.

Table 1 shows descriptive statistics, Alpha reliability coefficients and Pearson correlation among study variables. Alpha coefficients indicate that academic motivation and self-efficacy have high internal consistency whereas conscientiousness has satisfactory internal consistency. The findings indicates that academic motivation has significant positive correlation with self-efficacy and conscientiousness, whereas self-efficacy has significant positive correlation with conscientiousness.

Table 2 Multiple regression analysis showing the effect of self-efficacy and conscientiousness on the prediction of academic motivation among students (N = 200)

Variables	β	ΔR^2	<i>F</i>
		.51	104.62*
Conscientiousness	.30**		
Self-efficacy	.55**		

Note: * $p < .05$; ** $p < .01$

Table 2 shows the effect of self-efficacy and conscientiousness on the prediction of academic motivation among students. The R^2 value of .51 indicates that 51% variance in dependent variable can be accounted for, by the prediction [$F(2, 197) = 104.62, p < .001$] of conscientiousness and self-efficacy on academic motivation of students.

Table 3 Mean, standard deviation and *t*-values for male and female academic motivation (N = 200)

Variable	Male (n=100)		Female (n=100)		<i>t</i> (198)	<i>p</i>	95% CI		Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			<i>UL</i>	<i>LL</i>	
AM	119.88	28.22	128.37	25.53	2.23	.027	-9.8	-15.9	.31

Table 3 shows Mean, standard deviation and *t*-values for male and female on Academic motivation. Result indicates significant mean differences on Academic motivation [$t(198) = 2.23, p < .05$]. The findings shows that female students ($M = 128.37, p < .05$) significantly scored higher on academic motivation as compare to male students ($M = 119.88, p < .05$).

Discussion

The present study was conducted to find out the relationship between self-efficacy, academic motivation and conscientiousness among students of college and university. Researchers have recently turned attention to understanding how personality traits are related to academic success. Of the Big Five personality traits, only conscientiousness has consistently been associated with academic achievement (Nofle & Robins, 2007; O'Connor & Paunonen, 2007). Some other researches told that conscientiousness people are more motivated toward education. Therefore, in the current study it was hypothesized that there will be positive relationship between conscientiousness and academic motivation among students. Results show significant positive relationship between academic motivation and conscientiousness personality type. The findings of the current research can be supported with the previous research as in a study of Marsh, Trautwein, Ludtke, Koller and Baumert (2006) it was identified that conscientiousness is related to academic success (Marsh, Trautwein, Ludtke, Koller & Baumert, 2006). Another research was carried out in 2013 on The Role of Motivation, Cognition, and Conscientiousness for Academic Achievement by Imhof and Spaeth-Hilbert (Imhof & Spaeth-Hilbert, 2013) support the current research. Positive relationship was found among the variables.

In the current study it was also tried to determine the relationship between self-efficacy and academic motivation. Results support the hypothesis and reveals that there is significant positive relationship among the variables. Previous literature support the current research as it was found by Nofle and Robins (2007) that self-efficacy is most important construct in determining academic success and motivation. Many other empirical studies support this relationship (e.g., Chemers, Hu, & Garcia, 2001; Lane, Lane, & Kyprianou, 2004; Multon, Brown, & Lent, 1991; Nofle & Robins, 2007 as cited in Nicole, C & Patry M, W. 2012). The relation between self-efficacy, motivation, and performance was also found by Bandura the evidence is relatively consistent in showing that efficacy beliefs contribute significantly to the level of motivation and performance (Bandura, 1997).

Based on previous literature it was also hypothesized there will be positive relationship between self-efficacy and conscientiousness. Results support the hypothesis and it is concluded that there is significant positive relationship between self-efficacy and academic motivation. The hypothesis supports the previous literature, in 1997 Martocchio and Judge found that self-efficacy is positively related to conscientiousness. Lee, and Klein (2002) have also found significant positive relationship among conscientiousness and self-efficacy (Lee, & Klein, 2002).

The study also focused on identifying that how much variance is explained in dependent variable academic motivation by the predictor variables self-efficacy and conscientiousness. Results show that 51% variance is accounted for by the

predictors. The results of this hypothesis can be supported with the findings of previous researches. Abdolghasemi, and Javanmiri (2012) in studying the role of social desirability, mental health and self-efficacy in predicting students' academic achievement have shown that approximately 12% of variance which related to academic achievement of intelligent students was explicated by social desirability, mental health and self-efficacy variables (Abdolghasemi, & Javanmiri, 2012 as cited in jahanian, & Mahjoubi, 2013). In addition it was identified by Seif, and Mazrouqi (2008) that self-efficacy is the most powerful element for predicting educational performance (Seif & Mazrouqi, 2008).

The last hypothesis of the current research was that academic motivation will be higher in female students as compare to male students. Results for this hypothesis are significant. The result of this hypothesis can be support with the previous research done by the Bugler, McGeown, and Clair-Thompson (2013). They have found significant gender differences in academic motivation and conclude that Female significantly scored higher on academic motivation (Bugler, McGeown, and Clair-Thompson, 2013).

Conclusion

The need for developing self-efficacy in educational institute is essential for improving academic motivation among students. Different type of workshops can be organized for boasting the self-efficacy of students. Because it has found by the current research and many other previous researches that there is significant positive relation between self-efficacy and academic motivation academic counselor and educators should identify the existing level of self-efficacy of students and then should try to convert their low self-efficacy in high self-efficacy.

Limitations and suggestion

The limitations of the current study was low sample size and lake of control on extraneous variables which may influence academic motivation such as educational background, aptitude, attitude, motivation, parenting styles and past academic achievement. The utmost limitation of the study was that sample was not representative of population therefor the findings of current research can be generalizable to whole population, hence it lakes external validity. It is suggested that future research should be done while having representative sample and while having control over extraneous variables.

Implication

The current research has many implications in the educational field. As the result of the study shows that there is a positive relationship between three important variables that are conscientiousness, self-efficacy and academic motivation. The motivation of the students can be enhanced by giving them some sessions which should be conducted for the purpose of increased mental health, higher self-efficacy increased academic motivation.

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