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ACADEMIC SELF CONCEPT AND ACADEMIC ACHIEVEMENT AMONG UNDERGRADUATES IN UNIVERSITIES OF PAKISTAN: A GENDER PERSPECTIVE

Abstract

The paper discusses findings of the empirical research aimed at investigating the relationships of self-efficacy, self-esteem and academic self-concept with academic achievement among the undergraduates in universities of Pakistan considering gender as the main constituent effecting achievement. It describes literature, data and results relating to academic self-concept, which is defined as perception of our abilities, knowledge and comprehension within the academic environment influenced by academic motivation, competition, teacher preference, intelligence, and comprehension. The insight is built upon the confidence in our abilities and knowledge in relation to a particular task or domain including the efficiency of individuals to solve scholastic problems and coping with challenges. It has a crucial role in academic achievement. The sample of the study included 200 undergraduates from reputed universities of Pakistan providing data on a standardized instrument of Academic Self-Concept Scale (Ahmad, 1986). The findings revealed that academic achievement has a weak relationship with academic self-concept which is r = .172*. Undergraduates have moderate to high levels of academic self-concept with no

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significant gender differences found on the scale. Academic achievement was obtained by students' cumulative grade point average (CGPA) as part of the questionnaire. The paper points to implications from gender and academic achievement stand point and offers useful recommendations in this direction.

Key words: *Academic Self-Concept, Academic Achievement, Self-Concept, Self-Efficacy, Self-Esteem, Gender*

Introduction

In recent years the concept of academic achievement has gained a lot of importance in the academic community including; students, teachers, parents, educators and researchers worldwide. A growing concern by teachers and parents is being shown over the declining rate of students' achievement in their academics each year.

The general concern held is about low levels of learning and less interest shown by young adults in their studies, as many educators have elaborated the fact that they do well in their entrance exams, perform good academically during the year, but somehow, are unable to show their real potential at the end of the year (Chall, 2000).

Researchers have defined the term, 'young adulthood', as the time period from late adolescence to early adulthood. During this time period individuals go through metamorphosis in personal and professional capacity, although this change is relatively stable compared to earlier periods. According to researchers, the most prominent changes at this age occur in the educational area (Landry, 2003; Chall, 2000 Zimmerman, 2000; Zimmerman, 1990).

Young adults or undergraduates have a hard time meeting and maintaining the high standards of the curriculum and achieving

well academically at the end. This whole struggle for achieving successfully is at the center of all problems. Researchers have also pointed out that problems encountered by students at this level are based on their beliefs and self-judgments about their abilities and knowledge. These play an important part in undergraduate students' academic achievement each year (Landry, 2003; Cravel et al 2000 by Zahra; 2010; Marsh, 1990a.
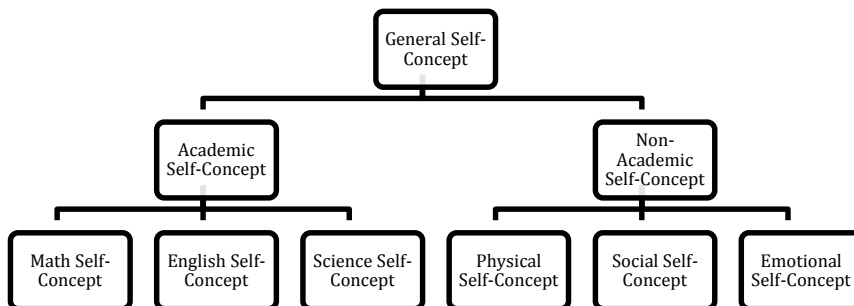
The literature on the subject suggests that academic self-concept is a part of self-concept, therefore, in order to understand the former, an understanding of the later is necessary (Shavelson et al. 1976, Marsh, 1990a, Marsh, 1990b).

Self-concept is often defined as how an individual perceives him/herself in relation to the surrounding environment. If self-concept perceptions are the result of the individual's environment, then, academic self-concept is a very integral part of a student's self-concept. Researchers have used a 'Multidimensional Self-Concept Model' for elaborating the idea. They say that self-concept can be divided into several sub-domains or dimensions (Joshi, and Srivastava, 2009, Landry, 200; Dixon, Craven, & Martin, No Year; Marsh, 1990a, Shavelson et al. 1976).

Shavelson, Hubner and Stanton (1976) developed their academic self-concept model around two divisions of the self- concept i.e. academic and non-academic self-concepts. These two divisions were further elaborated as academic self-concept incorporating Mathematics, English, Science and so on and non-academic self-concept relating to social, emotional and physical self-concepts.

The proposed division in the model was to retain the general self-concept at the center and making the next categories i.e. academic and non-academic self-concepts mutually exhaustive while

relating them with the actual behavior. An interpretation of the model is presented below:

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                        ┌──────────────┐
                        │ General Self-│
                        │   Concept    │
                        └──────────────┘
              ┌──────────────┐      ┌──────────────┐
              │   Academic   │      │    Non-      │
              │ Self-Concept │      │  Academic    │
              │              │      │ Self-Concept │
              └──────────────┘      └──────────────┘
   ┌────────┐  ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐ ┌────────┐
   │ Math   │  │English │ │Science │ │Physical│ │ Social │ │Emotional│
   │ Self-  │  │ Self-  │ │ Self-  │ │ Self-  │ │ Self-  │ │ Self-  │
   │Concept │  │Concept │ │Concept │ │Concept │ │Concept │ │Concept │
   └────────┘  └────────┘ └────────┘ └────────┘ └────────┘ └────────┘
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Academic Self-Concept (Marsh, 1990a; Marsh, 1990b)

Other models for studying the relationship of academic self-concept and academic achievement found in literature include: 1). 'Skill-Development model, 2). Skill-Enhancement model and 3). the Reciprocal Effects model (Rosen, Glennie, Dalton, Lennon and Bozick, 2010).

While the first model suggested that self-concept already established is a strong factor that influences academic achievement, in the second model, academic self-concept is viewed as the result of previous academic accomplishment. The third model, 'Reciprocal Effects' suggested that previous self-concept determines future self-concept and vice versa (Rosen, Glennie, Dalton, Lennon and Bozick, 2010; Zimmerman, 2000).

The paper postulates on the effects of academic self-concept on academic achievement of undergraduates in relation to their gender assuming that it is positively related to achievement with males demonstrating a higher academic self-concept as compared to females in pursuing a degree that is male dominated and vice versa. Its sub-constituents academic competition, academic ability,

academic motivation, competence, intelligence, comprehension and teacher preference have been also tested.

Academic achievement has been taken in the form of Cumulative Grade Point Average of previous year from the students enrolled in the senior year, for example, CGPA of 1st year from the students of 2nd year, CGPA of 2nd year from 3rd year students and CGPA of 3rd year from 4th year students. The relationship of CGPA with academic self-concept helped to determine high or low concept and achievement itself.

Significance of the Research

The current study was conducted to assess the effect of academic self-concept in relation to the achievements of undergraduate students in universities of Pakistan. The most visible problems of today's undergraduate are confidence issues, goal setting, social pressures, academic pressure in the form of competition, interest in subject matter being studied, elder expectations, subject selection at Bachelors level in consideration of job market demands and social expectations and the most important of all is the general under achievement scenario in view of educationists, parents and students. With so many burdens, students need proper guidance from significant people in their micro and macro-environment.

The research is expected to help parents, faculty members and students to analyze and identify factors responsible for academic achievement. Moreover, it attempts to identify appropriate strategies for enhanced learning of knowledge and skills and achievement relating to these factors. The study is also expected to make a worthwhile contribution to the existing literature on the topic in terms of understanding the phenomena in the specific context of Pakistan.

Literature Review

Issues of academic achievement in relation to self-efficacy, self-esteem and self-concept are gaining immense appeal among students, teachers, educational scholars and researchers worldwide. According to the literature on the subject the above three concepts play a vital role in academic achievement indicating the presence of various underlying factors like self-concept, self-regard, self-regulation, goal setting and so on.

Literature suggests that academic self-concept is a crucial variable in studying academic achievements. According to Ahmad (1986) 'it refers to the students' attitudes and perceptions with regard to their academic potential' (Ahmad, 1986, in Zahra, 2010.

It is important to study the concept in academic settings for both students and teachers as the way a student thinks about his/ her abilities, performance at school and in college and the manner in which he/ she actually learns is an important factor towards their achievement. It is formed through student's perceived ability or efficacy in class environment that the student experiences. According to Dambudzo (2005) positive academic self-concept has significant relationship with academic effort, persistence, course selection, school completion and educational attainment.

Academic Self-Concept, Children and Academic Achievement

Bacon (2011) conducted research to explore effect of academic self-concept and academic achievement among African American students moving from rural to urban schools using a sample of 101 participants with 53 females and 48 males from 11 to 14 years in 7th and 8th grades. The results found academic self-concept having a statistically significant relationship with achievement in

academics among transitioned and non-transitioned students. The study did not find any differences in achievement among these students on the basis of gender. The study also found academic self- concept having a significant relationship with CGPA, attitude towards teachers and overall performance of students.

Sánchez and Roda (2005) collected data from 245 pupils of sixth year, primary education from five public and one subsidized school of Almeria's Alpijarra region in Spain to investigate linkage in self-concept and academic achievement. The participants included 122 male and 123 female students. The self-description questionnaire comprising academic self-concept, non- academic self-concept and total self-concept was utilized as data collection tools.

The study observed that academic self-concept had a close and statistically significantly relation with three measures relating to cognitive, affective, reading and parental relations, but no relation with non- academic concept involving physical and social concepts. Results about linkage between total self-concept and academic self-concept indicated that they have a significant relation with the general academic performance.

Stringer and Heath (2008) conducted research on self-perception of students in studies and its relation to their school performance using a sample of 155 students from regular education programs of local Montreal public schools. The participants included 92 males and 63 females of approximately 10 years of age from grade four and five. Measures of WISC-III Block Design and Vocabulary, WRAT 3-The Wide Range Achievement Test, WRAT-3 Reading subset, WRAT-3 Mathematics subtest, and The Self-Perception Profile for Learning Disabled were utilized for collection of data. It was found that self-perceived competence was generally high in

both the subjects, that is, Reading and Mathematics from time 1 to time 2, from 2007-2008. Academic performance outcomes relating to reading and mathematics achievement were also found fairly stable. No significant gender differences were found regarding Mathematics and Reading achievement. Moreover, no difference was found in academic performance over time due to their perceived competence and vice versa.

Academic Self-Concept, Adolescents and Academic Achievement

While studying the self-concept of high and low achieving of high and low achievers adolescents, Adsul (2011) chose 10th standard student from the secondary schools of Sangli city, Miraj and Tasgaon Taluga. The male female ratio was 50-50%, ranging from 14 to 16 years of age. Those with more than 70% were termed high achievers while less than 40% as low achievers.

Self-concept questionnaire was utilized as data collection tool. No significant differences were found for physical and social self-concepts among high and low achievers. Significant difference was found between the two groups on intellectual self-concept scale. Moreover, relations between emotional and moral had also no difference with respect to the two groups. Neither educational achievement had influence on the academic self-concept.

Ogunlade (1992) collected data from 1, 106 adolescents involving 695 boys and 411 girls to find correlation if any between self-concept and achievements among adolescent students. Measurement instruments in the above study included; self-concept scale and educational attitudes questionnaire. The study noted that self-concept was correlated positively with academic achievement. No significant differences were found among adolescents regarding gender.

Areepattamannil and Freeman (2008) conducted research to find relationship among academic self-concept, motivation and achievement of students in secondary schools including 573 immigrant and non-immigrant students. The findings of this research reported that immigrant adolescents had higher performance in terms of GPA in Mathematics and school self-concepts along with external motivation-external regulation. While verbal and school self-concept was found to be predicting GPA for both adolescent samples, school self-concept was found more significant predictor of GPA in case of non-immigrant adolescents (Areepattamannil and Freeman, 2008).

Academic Self-Concept, Adults and Academic Achievement

Coetzee (2011) conducted research to investigate the linkage among student's academic self-concept, motivation and their achievement at the university level. The sample comprised 47 students from the first year, 51 from the second year, 56 and 36 students from third and fourth year. Self-description questionnaire III was utilized to assess academic self-concept and the academic motivation of the participants and results were analyzed year wise.

While the study did not find any significant relationship between academic self-concept and academic achievement of first year students, significant relation was found between the two concepts for second and third year students. Also, no difference was observed among academic self-concept and academic achievement for fourth year students. Overall, the study did not find any meaningful relation among the three variables i.e. academic self-concept, motivation and achievement among the university students.

Choi (2005) conducted research on self-efficacy and self-concept as predictors of academic performance among college students. While working on different forms of the two concepts i.e. general self-efficacy, academic self-efficacy and specific self-efficacy along with academic self-concept and specific self-concept the study found academic and specific self-concept related positively to the academic performance of the students in the form of their grade point average, (GPA). However, no significant influence of general and academic self-efficacy was found on GPA of participants.

Academic Self-Concept, Undergraduate and Achievement in Pakistan

Zahra (2010) conducted research on self-concept and academic achievement to find the linkage between the two using a sample of 1500 female Bachelor degree students of 15 degree colleges of Rawalpindi and Islamabad. The study included females only, who belonged to third and fourth year's students 100 from each the college. Sixty students from third year while 40 from fourth year. Self-description questionnaire III was utilized with emphasis on three dimensions i.e. academic self-concept, physical self-concept and social self-concept.

Mean scores for academic self-concept indicated that on average females students had a positive academic self-concept. They also had a positive physical, social and general self-concept. Results relating to relation of these variables with achievement revealed that there was a moderate relationship between academic self-concept and achievement. However, the study did not find a statistically significant relationship among physical self-concept and achievement, and social self-concept with achievement.

Rehman (2001) collected data from 600 students of 10th grade from 12 schools of Dera Ismail Khan and its suburbs to find relationship if any among self-concept, classroom environment, cognitive development, gender of students and their academic achievements. Four urban government, 4 rural government and 4 private schools were selected for the study.

Fifty students of a classroom were selected from every school totaling 200 from 4 schools of each category. Measures for assessing classroom environment and self-concept were developed by the researcher and administered after careful pilot testing. Results revealed that significant differences were found in the self-concept of males and females. Also, a strong positive relation was observed between self-concept and academic achievement of students.

To conclude, the above review of literature suggests that there exists a positive linkage among academic self-concept, academic achievement and relating concepts. The whole discussion underscores the need for investigating this relationship among undergraduates in the culture specific context of universities in Pakistan which in turn would lead to introduce the relevant interventions towards improving the academic standards in general and among the young adults in particular.

Methodology

The research was aimed at establishing and verifying the relationship of academic self-concept to academic achievement. A descriptive survey method was adopted. The study employed a quantitative co-relational research approach that tried to investigate the effect of academic self-concept on academic achievement of undergraduates by utilizing a multi-method

research procedure and adapted standardized scale of Academic Self-Concept (Ahmed, 1986) for data collection.

The scale was in Urdu language which was translated into English after seeking consent of the researcher. Academic achievements of students were obtained in the form of cumulative grade point average from the students with formal involvement of the office concerned. Data were interpreted statistically.

The sample for the study included undergraduates from both public and private universities in Pakistan including; Punjab University, Government College University, Lahore University of Management Sciences and University of Management & Technology. Probability Sampling was chosen as sample design for adequate sample representation and a wider spectrum of results. Moreover, only universities offering Co-Education with Economics as common major were considered. A sample of 200 undergraduates aged 18–24 years was selected for achieving homogeneity using the Simple Random Sampling. Pilot testing was also made for 30 undergraduate students.

Alpha reliability of the scales utilized for the study is as below:

Table1. Reliability of Three Scales Utilized for the Study

Reliability	N	Cronbach's Alpha
Self-Efficacy Scale	10	0.875
Self-Esteem	29	0.857
Academic Self-Concept	38	0.878

Data Analysis and Interpretation

After collection of data from one hundred and eighty six respondents, data were recoded using the SPSS grid sheet. After

feeding, data were cleaned to prepare for analysis. Both descriptive and inferential statistics were applied for data analysis. Statistical tests like t-tests and ANOVA were used wherever they required and support the results. While descriptive statistics were applied for demographic profile of the respondents, Pearson co-efficient of correlation was calculated to find the relationship between self-esteem, self-efficacy, academic self-concept and academic achievement.   T-test was applied to compare male and female students on self-esteem, self-efficacy and academic self-concept.

ANOVA was applied to see the difference in 2nd year, 3rd year and 4th year students on self-esteem and its subscales. Regression Analysis was applied to see the effect of self-esteem, self-efficacy on academic self-concept.   Bivariate Correlation was used for finding relationship of three scales with CGPA and relationship of three scales with CGPA in relation to gender.

Table 2. *Demographic Information (n = 186)*

Demographic Variables		n	%
Gender	Male	101	54.3
	Female	85	45.7
Age	18 – 20	91	48.9
	21 – 23	95	51.1
Education	4th year	38	20.4
	3rd year	50	26.9
	2nd year	98	52.7
Subjects	Management sciences	49	26.4
	Economics	32	17.2
	Business Accounting and Finance	18	9.7
	E-Commerce	38	20.4
	Mathematical application in Economics	49	26.3

Table2 reflects the frequency and percentage of gender, age, education and subjects and is self-explanatory.

Table 3.   *Percentiles for Estimating the Percentage of Undergraduates under a Score on a Scale*

Percentiles	Self-Esteem	Academic Self-Concept	Self-Efficacy	CGPA
	Score (range 29-116)	Score (range 38-152)	Score (range 10-40)	
10	74.0	89.0	20.9	2.70
20	79.4	95.0	25.0	2.88
30	82.0	100	27.0	3.00
40	86.0	104	28.6	3.08
50	89.0	107	30.0	3.20
60	92.0	109	31.0	3.31
70	95.0	114	33.0	3.38
80	98.0	117	34.0	3.48
90	102	127	36.0	3.66

Table 4. *Undergraduate Students Aggregate Levels of Self-Esteem and its Sub-Factors, Academic Self-Concept and Self-Efficacy*

	Mean	Standard Deviation
Self-Esteem	88.51	10.53
Self-Acceptance	35.58	5.32
Self-Competence	17.26	3.08
Social & Physical Self-Acceptance	21.78	3.03
Academic Self-Competence	14.42	2.90
Academic Self-Concept	107.08	13.91
Self-Efficacy	28.85	6.07

Table 4 presents values for the total calculated levels of the variables and their sub-scales for students and represents their perceptions on their self-esteem and its different dimensions, self-

efficacy and academic self-concept. The M = 107.08 and SD = 13.91 for academic self-concept is the highest indicating that majority of students have an above average and positive self-concept for their academics.

Table5. *Relationship among Self-Esteem, Academic Self-Concept, Self-Efficacy and Cumulative Grade Point Average*

	Self-Esteem	Academic Self-Concept	Self-Efficacy	CGPA
Self-Esteem	1			
Academic Self-Concept	.589**	1		
Self-Efficacy	.292**	.327**	1	
CGPA	.020	.172*	.138	1

Note. *p<0.05, **p<0.01.

The value 0.01 shows the significance level while the two ** depict the strength of significance. The three number digits after the point like .589 indicate the strength of relationship between two variables such as weak, moderate or strong. Correlation values are between -1 to +1. Values between these two points indicate the following: (0 – 0.3) weak relations and (0.3 – 0.7) moderate relations awhile (0.7 – 1.0) strong relations.

As shown in table 5 correlation between Academic Self-Concept and Self-Esteem is r = .589(**) which shows a moderate positive and statistically significant relationship. The correlation between Self-Efficacy and Self-Esteem is r = .292(**) which depicts a weak positive and statistically significant relationship. The correlation between Academic Self-Concept and Self-Efficacy is r = .327(**) which depicts a moderate positive and statistically significant relationship. Correlation value for Academic Self-Concept and CGPA is r = .172** which depicts a weak positive and statistically significant relationship.   The correlation values have been further

illustrated in the form of scatter plots for understanding the relationships in greater depth.

The relationship or effect of self-esteem and self-efficacy on academic self-concept has been exhibited in table 6 below with the help of Regression analysis.

Table 6. *Effect of Self-esteem and Self-Efficacy on Academic Self-Concept*

	B	Std. Error	B	t	Sig.
(Constant)	52.157	8.691		6.001	.000
Self-Esteem	0.714	.082	0.539	8.697	.000
Self-Efficacy	0.384	.144	0.166	-2.673	.008

a Dependent Variable: Academic Self-Concept

Regression describes the estimated change in dependent variable by the independent ones. *The table* presents Regression values for Self-Esteem and Self-Efficacy and describes the effect of self-esteem and self-efficacy on academic self-concept, that is, the estimated change of two independent variables on the third independent variable.

The β value for Self-Esteem is 0.539 (B = 0.714) is statistically significant and indicates that Self-Esteem has more effect on Academic Self-Concept than Self-Efficacy. This change was estimated when the B value was added to the total score obtained by undergraduates on the self-esteem scale and the B value indicates the value of change or effect in academic self-concept. The β value for Self-Efficacy is 0.166 which is statistically significant and represents that Self-Efficacy has an effect on Academic Self-Concept.

Table 7. *T-Test for Males and Females on Self-Esteem, Self-Efficacy and Academic Self-Concept*

	Male		Female		t-value	df	p-value
	Mean	SD	Mean	SD			
Self-Acceptance	35.65	5.38	35.51	5.30	-0.64	179.00	0.52
Self-Competence	17.13	3.12	17.43	3.06	-1.54	176.00	0.12
Social & Physical Self-Acceptance	21.46	3.18	22.16	2.82	-0.62	181.00	0.54
Academic Self-Competence	14.30	3.19	14.57	2.53	-0.69	184.00	0.49
Self-Esteem	88.02	11.01	89.09	9.96	-0.64	179.00	0.52
Self-efficacy	28.81	5.99	28.91	6.19	-.115	176	0.909
Academic self-concept	106.31	14.68	107.98	12.91	-.815	184	0.416

T-Test is used for comparing independent samples. Table 7 above presents comparison among males and females on self-efficacy, self-esteem and academic self-concept scales.

The Mean for males on Self-Esteem scale is M = 88.02 and for females M = 89.09. The Mean for males on Self-Efficacy scale is M = 28.81 and for females is M = 28.91. The Mean for males on Academic Self-Concept scale is M = 106.31 and for females is M = 107.98. It is evident that none of the *p* values are less than .05 which tells us that there is no difference between males and females on any of the scales.

Table 8. *ANOVA for Comparing Students on Academic Years on Self-Esteem and Sub-Scales*

	Academic Years of Undergraduates							
	2nd		3rd		4th		F-value	P-value
	Mean	SD	Mean	SD	Mean	SD		
Self-Esteem	87.46	10.34	86.92	10.74	93.28	9.56	5.18	.006*
Self-Acceptance	35.47	5.76	34.51	5.24	37.25	3.70	2.70	.070
Self-Competence	16.94	3.12	17.44	3.07	17.83	2.99	1.21	.298
Social & Physical Self-Acceptance	21.13	2.88	21.93	2.81	23.15	3.21	6.43	.002*
Academic Self-Competence	14.21	2.77	13.87	2.93	15.63	2.91	4.56	.012*

ANOVA is used for analyzing the variation in results from more than two groups. Table 8 above presents that there is no difference among undergraduates on self-acceptance and self-competence. However, the *p* value for self-esteem is .006* which is less than .05and indicates that there is difference in the performance of students from the three years on the scale.

The *p* value for social and physical self-acceptance is .002* which is also less than .05 but indicates that there is no significant difference among students for this factor. Also, the p value for academic self-competence is .012* which is less than .05 and indicates that there is difference among the students for this factors.

For analyzing the exact difference that make the above p values significant, multiple comparison Post Hoc test was applied. The results obtained are described in Table 9 below:

Table 9.*Multiple Comparison Post Hoc Test for Academic Years*

	Comparison	Mean Difference	p. value
Self-Esteem	4th vs. 3rd	6.37*	.018
	4th vs. 2nd	5.82*	.014
	2nd vs. 3rd	0.54	.954
Social & Physical Self-Acceptance	4th vs. 3rd	1.22	.166
	4th vs. 2nd	-2.01*	.002
	2nd vs. 3rd	-0.79	.321
Academic Self-Competence	4th vs. 3rd	1.75*	.020
	4th vs. 2nd	1.41*	.036
	2nd vs. 3rd	0.34	.795

Table 9 presents Mean Difference between the three academic years for self-esteem and its two factors. There is a difference of 6.37* between 4th and 3rd years and 5.82* between 4th and 2nd years indicating that 4th year students have higher Self-Esteem than the students of other years. A difference of -2.01* exists between 4th and 2nd year students indicating that 4th years have more Social and Physical Self-Acceptance than the other years.

A difference of 1.75* exists between 4th and 3rd year students and 1.41* exists between 4th and 2nd years indicating that 4th years have more Academic Self-Competence than others. The results indicate that 4th year undergraduates have the most high levels of self-esteem including the factors.

Table 10. *Correlation of Academic Self-Concept and Sub-Scales with CGPA*

	Academic self-concept	Motivation	Competence	intelligence	preference	competition	ability	comprehension
Academic Motivation	.734**							
Academic competence	.635**	.326**						
Academic intelligence	.534**	.139	.240**					
Teacher Preference	.606**	.288**	.408**	.356**				
Academic competition	.698**	.398**	.301**	.437**	.436**			
Academic ability	.533**	.242**	.422**	.344**	.272*	.333**		
Academic comprehension	.512**	.207**	.472**	.269**	.322*	.203**	.316**	
CGPA	.172*	-.063	.232**	.038	.164*	.318**	.255**	.138

Table 10 exhibits a weak positive and statistically significant relationship of academic self-concept with CGPA having a value of r = .172* which is from 0 to 0.3. CGPA has a weak positive and

statistically significant relation with academic competence with a value of r = .232**, it shows a weak positive and statistically significant relation with teacher preference with a value of r = .164* and a weak positive significant relation with academic ability with a value of r = .255**, all the values from 0 to 0.3. CGPA has a moderate positive and significant relation with academic competition with a value of r = .318** which is from 0.3 to 0.7.

Findings

The research was carried out to investigate the relationship of academic self-concept to academic achievement. The main objective of the study was to assess self-efficacy, self-esteem and academic self-concept levels and relations. The second main objective was to identify the factors influencing self-efficacy and self-esteem and finding differences on the basis of gender if any.

The following findings were drawn from the data analysis:

1. Undergraduates have moderate to high levels of self-esteem, self-efficacy and academic self-concept according to the scales utilized in the research.
2. No difference was found among male and female in terms of academic achievements on any of the concepts above.

3. It was found that only academic self-concept has a weak positive relationship with academic achievement while self-efficacy and self-esteem have no relation. Sub factors of academic self-concept like academic competence, academic ability, teacher preference and academic competition exhibited a weak to moderate relationship with academic achievement.

Discussion

This research was primarily aimed at finding the relationship of academic self-concept with academic achievement and investigating if the three independent variables have a positive relation with academic achievement. Objectives of the study also included determining the levels of the above variables among undergraduates and finding the relations in them on the basis of gender. The findings reveal that undergraduates have a moderate to high levels of self-efficacy; self-esteem and academic self-concept. The findings also suggest that self-efficacy and self-esteem have no relationship with academic achievement while academic self-concept has a weak relation to achievement. A wide view of literature as reviewed earlier suggests that self-efficacy has a positive relationship with academic achievement.

Li (2012) says that academic self-efficacy and academic achievement have a positive relationship while studying the relationship of attitude, self-efficacy, effort and academic achievement of university students towards Research Methods and Statistics. The above study found that students having high self-efficacy achieved high in academics also.

While quoting Turner, Chandler and Heffer (2009), Li suggested that self-efficacy as a significant predictor of academic achievement in the study conducted to find the influence of styles of parenting, achievement motivation and self-efficacy on students' academic achievement. One of the studies included in Li (2012) research, however, support current research's finding exhibiting a rather weak relationship among these variables. Stupnisky et al (2007) also found self-esteem having no effect on achievement while comparing self-esteem and self- control as predictors of academic achievement among the first year college students.

Strelnieks (2005) checked the relation of self-efficacy with academic achievement in the presence of external factors like gender and socio-economic status. She found that self-efficacy is only able to predict female achievement while achievement can be predicted by self-efficacy in students from high socio-economic status. Similarly, Hisken (2011) in her study reported a positive correlation among self-esteem, student reading ability, reading level and academic achievement. The above research found that students' self-esteem level was influenced by their success in academics. In another study conducted by Hall (2007) to investigate relationship between academic achievements, academic performance and self-esteem among high school juniors, it was found that self-esteem have a significant relationship with academic achievement.

The findings by Cokley (2000) about investigating the relationship of academic self-concept with academic achievement in African American college students does agree to the current research findings to some extent. Mujis (1997) also found a strong relationship between academic self-concept and academic achievement while studying the predictors of academic achievement and academic self-concept; a longitudinal perspective with Belgian primary school age children.

Moreano (2004) reported a significant positive correlation between academic self-concept and achievement as part of the findings of the study carried out to find relationship among academic self-concept, attribution for success and failure and academic achievement among adolescents. Byer (2000) shared the same findings from his study conducted to find the effect of absences and academic self-concept on academic achievement in two eleventh grade history classes, stating a significant relationship between both i.e. academic self-concept and academic achievement.

Second major objectives of the research was about finding any gender differences present in academic achievement with respect academic self-concept including self-esteem and self-efficacy. It was to investigate if males have high levels in relation to all the three independent variables. As there exists a stereo typical view in Pakistani society that males generally have a higher self-efficacy and self-esteem in every field of life including the academic self-concept as compared to their counterpart females. The findings of the current study suggest that there is no difference among males and females in academic achievement in relation to the three variables.

Research findings that males self-efficacy is higher than females has been supported by Peters (2012) in his study about examining the relationships among classroom climate, self-efficacy, and achievement in undergraduate Mathematics though a multi- level analysis. The study revealed that boys had higher Mathematics self-efficacy but no differences were found in Mathematics achievement on the basis of gender. Findings of the research conducted by Misigo, Ogoma and Momanyi (2010) contradict to present research findings while investigating differences in self-efficacy and academic performance in science subjects of Biology, Chemistry and Physics on the basis of gender suggesting significant differences among males and females in academic performance in Science subjects. Moreover, the study identified significant relationship in students' self-efficacy and academic performance.

Another study by Reisberg et al (2010) also found the effect of gender on academic performance and self-efficacy level of undergraduates in the Engineering program. The researchers studied gender effect in relation to three domains of self-efficacy that is- work, career and academic and how all these efficacy areas are affected by university's support system. Their findings reveal

major gender differences in the three domains of self-efficacy. Women were found to be more efficacious in career, work and system supported aid while males had high self-efficacy in academic area.

The finding on research objective about investigating difference among males and females in achievement and self-esteem indicated no difference on the basis of gender. Findings from Lawrence, Ashford and Dent (2006) contradict the findings of the current study and suggested that males had high self-esteem while females had higher attainment.

Research conducted by Joshi and Srivastava (2009) also contradicted the findings of the present study while investigating self-esteem and academic achievement of urban and rural adolescents. They found that boys had higher self-esteem than girls but girls had higher academic achievement than boys. One of the research objectives was to find if there exist any difference among males and females in academic self-concept and achievement. The findings of the current study did not reveal any such differences on the basis of gender among under graduates studying in universities of Pakistan.

The findings of the study are in line with the study conducted by Sainz and Eccles (2011) which pointed to gender implications across time along selection of subjects using Information and Computer Technology (ICT) as a case in point. However, the authors did not find any gender differences in Mathematics performance on the basis of gender. These findings are in contrary to the findings of some other cross cultural studies on the subject that found differences in performance on the basis of gender as discussed in the literature review. For instance, Matovu (2012) found gender having a significant effect on academic effort and achievement among university students.

To conclude, the findings of the study suggest that undergraduates in universities of Pakistan have moderate to high levels of self-esteem, self-efficacy and academic self-concept according to the scales utilized in the research. As per general perception that prevails in the Pakistani society that males have higher level of self- concept and academic achievement in co-education institutions i.e. universities at undergraduate level, no significant differences were found among male and female students in terms of academic achievements on any of the concepts above. The study found that only academic self-concept has a weak positive relationship with academic achievement while self-efficacy and self-esteem have no relation with academic achievement.

Likewise, sub factors of academic self-concept like academic competence, academic ability, teacher preference and academic competition exhibited a weak to moderate relationship with academic achievement. The above findings have implications for academic institutions, teachers, students and parents and suggest the need for bringing awareness among students on the subject and encourage them to compete in academics covering all areas irrespective of gender.

The study challenges the general perception in the Pakistani society that females may perform well in all female institutions as compared to co-education and emphasize on the need for encouraging talent of both genders in all institutions. The study also points to the need for introducing mentoring and guidance programs for students, parents, teachers and key stakeholders to develop students' self-concepts, self-efficacy and self-esteem on equal footings in this direction.

Future Research Directions

The above findings and analysis of the study point to the following research directions for future research in the area:

1. While present research relied more on quantitative and survey research, qualitative research may also be utilized to seek in-depth information on the subject through engaging faculty members and students in group discussions through focus group discussions and interviews.

2. Online surveys, forums and group discussions asking student population about the factors involved in academic achievement through social networking sites can be conducted to enhance outreach and understanding of the issue.

3. More research is required by researchers, that is, faculty members and students both at different universities for finding out more precise reasons and factors that affect academic achievement to address the issue in order to generalize the findings of the study.

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