
A Study of Academic Self-efficacy of University Students in Associations of Socio-demographic Variables

_____ Fariha Sohail

===== Shafqat Hussain

===== Abdul Qadir Mushtaq

In proposed study whether academic self-efficacy on university students differ in perception of various social demographic features have been analyzed. This surveillance was conducted on 1678 BS Honor students who were attending perspective classes held at Government College University Faisalabad. In the perception the academic self-efficacy Scale and personal information form were used as data collection tools and implement. Independent sample “ t test ” and one-way analysis of Variance” were used for the analysis of perspective data. The finding of the perception suggested there are significant discrepancy between academic self-efficacy, Gender grad level, Economic situation of the family, Field of study and perceived academic achievement. It was also suggested by the conclusion of the study that are no significant difference between academic self-efficacy of University, BS Honor students and field of study that educational levels of the parents, Number of family members and hereditary numbers, and perceived academic achievement in high school and the dwelling unit where the students lived in the longest. With the help of relevant data progression has been discussed and conclusions were made.

Self-efficacy characterized as an individual personal belief in his own abilities in order to produce a specific performance(Altunsoy, Çimen et al. 2010) has been seen from a few points of view in different fields. The fact that self-efficacy has been studied in various fields caused different concepts to appear in this field of social self-efficacy(Anderson and Betz 2001) Career self-efficacy(Goodall and Montgomery 2014)and technological self-efficacy Schunk (Joo, Bong et al. 2000) could be given as examples of these concepts. Moreover, academic self-efficacy where individuals regulate the belief and justice themselves in different educational duties on the other hand appears to be a concept derived from self-efficacy theory

of Bandura. Academic self-efficacy which define individual beliefs of achievement of educational duties (Credé and Phillips 2011), affects learning and motivation thus would be helpful in students mental efforts related to learning. In the improvement of academic self- efficacy, it is clear that different factors play important roles. Chung and Elias, (2009) states that in shaping the academic self-efficacy, family defines school and transitional influences are highly important. Additionally, it is also claimed that teacher roles would add to shaping of student academic self-efficacy (Kemp 2011). According to a study conducted by Banfield, (2009) teacher negative behavior in class affected students self-efficacy negatively.

On the other hand encouraging behaviors of teachers to students affected students positively in building self-efficacy. For instance when a student who experienced failure in the classroom was given a positive feedback by the teacher the self-efficacy of the students might gain strength and this could help student to turn his failure into a success in the future (Chemers, Hu et al. 2001) thus teacher need to be careful with their type of behavior and their feedback against their students for the sake of the academic self-efficacy of their students.

Academic self-efficacy which reflect students personal beliefs in his own capacities to achieve educational duties at expected level (Gore Jr 2006), increases students mental efforts to learning. Students whose academic self-efficacy level are strong put persistent to overcome the academic duties assigned to them and do not give up easily. Moverover when the students with higher academic self-efficacy compared to the ones with low self-efficacy, it was found that those having higher academic self-efficacy study more and by using efficient learning strategies to manage difficult academic duties effectively (Jerusalem and Schwarzer 1981, Joo, Bong et al. 2000, Kemp 2011).

Studies showing that students with higher self-efficacy levels could manage their school life better are available in the literature (Credé and Phillips 2011, Kraft and Dougherty 2013) students with low level of academic self-efficacy experience academic failure more and have problems in devoting themselves to school (Altunsoy, Çimen et al. 2010) in other words students with low academic self-efficacy levels draw themselves away from duties avoidance experience motivation problems and experience anxiety with school (Kraft and Dougherty 2013). Nonetheless students with high levels of self-efficacy devote themselves to school better and be more optimistic (Goodall and Montgomery 2014).

The unsuccessful experience of students affects their academic self-efficacy negatively. (Bassi, Steca et al. 2007) state that students with high self-efficacy are more willing to perform duties given to them when compared to the one with low self-efficacy. Academic self-efficacy is also related with the vulnerability of students. Students with low academic self-efficacy despite their ability levels are more fragile in the classroom (Barlow, Wright et al. 2002) since students with high academic self-efficacy are fragile when compared to students with low academic self-efficacy

they tend to struggle fearlessly against failure in terms of their own belief. Academic self-efficacy is also beneficial for students to be positive individuals in social, emotional and academic aspects (Zimmerman 2000). It was confirmed that there is a significant relationship between academic self-efficacy of students and their adjustment levels (Wuebbels 2006, Goodall and Montgomery 2014). Moreover (Nie, Lau et al. 2011) stated that students whose academic self-efficacy is higher experienced less academic stress and anxiety. In another study conducted by (Poyrazli, Arbona et al. 2002), it was found that there is a negative relationship between academic self-efficacy and loneliness.

There are also studies claiming that self-efficacy is closely related with to problem behaviors. (Chung and Elias 2009) specified that the more the problem behaviors of the students are the less their academic self-efficacy is similarly (Jerusalem and Schwarzer 1981, Credé and Phillips 2011, Goodall and Montgomery 2014) stated that students having low levels of academic self-efficacy fail to have strong relationships with their friends and show more violent behaviors when compared to students with higher levels of academic self-efficacy. When students with higher academic self-efficacy perform weakly they blame themselves for not putting enough effort students with lower levels of academic self-efficacy on the other hand explains their failure through their own ability (Wuebbels 2006, Nie, Lau et al. 2011).

When the literature is examined it could be clearly seen that there is a strong significant positive relationship between academic self-efficacy and academic success. However, while some studies stated that academic self-efficacy causes academic success of the students (Barlow, Wright et al. 2002) other studies claimed that academic success makes academic self-efficacy stronger (Joo, Bong et al. 2000) if a student can perform a duty assigned to them without being overwhelmed it might also mean that their academic motivation is also high, students with lower levels of motivation may have difficulties in completing a difficult academic assignment as a result their academic self-efficacy weakens (Joo, Bong et al. 2000, Bassi, Steca et al. 2007).

The aim of this study is to determine whether academic self-efficacy of university students differ significantly in terms of gender education variables (grade levels perceived academic success in high school perceived academic success in university and major) and family related variable (education level of the parents income of the family numbers of members and siblings in the family and the dwelling unit where the students lived the longest) were also taken into consideration in this study.

Materials and Methods

Participants:

The study was conducted on 1678 students who were chosen by a proportion sampling method among 13704 students studying at Department of life science, Department of Masscounication, Department of Economics& Management Science, Department of Engineering, Department of physical science, Department of Islamic & Orienta Learning ,Department of History & Pakistan studies, Department of pharmacy, Department of English literature, Department of Education. Department of Law, Department of sociology, Department of Political Science. Of all the participants 954(57%) were female 724(43%) were male. 319(19%) were freshmen388(23%) were sophomores 426(25%) were juniors and 546(32%) were seniors. Th age range of the participants was between 16-36, the average age was 21.31 and standard Deviation of the age was 2.04.

Instruments

Academic self-efficacy Scale(ASS)

The ASS which was developed by (Jerusalem and Schwarzer 1981) was translated into Turkish by Yilmaz, Gurcay and kici. He ASS which have 7 item (even if a written exam is vry hard, know I will succed) is one dimension. The scale has 4-Likert type (1=completed Disagree to 4= cmpletely Agree)rating the scores that can be obtained from the scale renege from 7 to 28 and higher scores indicated that higher academic self-efficacy. Cronbach alpha coefficient of the Turkish version of the ASS was calculated as .79(Kraft and Dougherty 2013). In the current study the Cronbach alpha coefficient of the scale was calculated as .74.

Personal Information Form (PIF)

PIF was prepared by the first author and includes four (How do you perceive your academic success) questions related with educational situations (grade level,perceived academic success in high school, perceived academic success in university,and major). PIF also includes six questions (How is your family economic situation?) Associated with family-related situation (education level of the parents economic situation of the family, number of members and siblings in the family and the dwelling unit where the student live longest). In addition, gender was asked in the PIF.

Procedure

The questionnaire packet used in the study were given to the students in one booklet and applied in one session in the classroom environment. Completion of the instruments required no more than five minutes.

In the analysis of date independent ample t test and one-way ANOVA were used. Before statistical techniques were applied the assumptions of the independent

sample t test and one-way ANOVA were checked. When one-way analysis of variance result were found statistically significant Scheffe test was applied in order to find the sources of the difference between groups. In situations where variances were not homogenous Dunnet c test was applied.

Results

The independent t test result showing whether there is a significant relationship between gender and academic self-efficacy of university students are shown in Table 1.

Table 1 .t test comparing Male and female on Academic self-Efficacy

Variable	Gender	N	\bar{X}	SD	T	Df
Academic Self- efficacy	Male	725	20.56	3.36	5.46**	1676
	Female	954	19.36	3.12		

**p<.01

As seen in table 1 Academic Self-Efficacy scores of males are higher the female. t test results to test whether the difference observed between males, and female is significant or not showed that the difference is statistically significant [$t_{(1676)}=5.46, p<.01$].

One-way analysis of variance result showing whether self-efficacy of university students differ significantly according to their grade levels, perceived academic successes in high school and university, and their field of study are presented in Table 2.

Table 2. ANOVA_s result for Academic Self- efficacy by Educational variables

Variables	N	\bar{X}	SD	Source	Sum of squares	Df	Mean Squar e	F	η^2	Post Hoc comparis on
Grade level										
Freshmen	31	20.0	3.2	Between Groups	118.48	3	39.46	3.73*	.00	(Scheffe) b < d
	8	2	8							
Sophomor es	38	19.7	3.3	Within Groups	17705. 77	167 4	10.55			
	9	2	5							
Juniors	42	19.8	3.2	Within Groups	17705. 77	167 4	10.55			
	5	9	1							
Seniors	54	20.3	3.1	Within Groups	17705. 77	167 4	10.55			
	5	9	6							
Perceived Academic success in high school										
Low	13	19.8	3.6	Between Groups	47.23	2	23.61	2.21	.00	-
	6	8	2							
Middle	41	19.7	3.1	Within Groups	17777. 01	167 7	10.60			
	0	6	2							
High	11	20.1	3.2	Within Groups	17777. 01	167 7	10.60			
	30	6	4							

Preceived academic success in university										
Low	18	18.0	3.3	Between	1995.7	2	2.21	105.7	.11	(Dunnet
	5	4	7	Groups	9			3*	3	t C)
Middle	98	19.6	3.0							a< b< c
	8	5	1							
High	50	21.5	3.0	Within	15826.	167	10.61			
	3	2	8	Groups	56	4				
Field of study										
Teach	52	19.6	3.0	Between	169.32	3	56.44			
&Sci	2	5	9	Groups						
Social	10	20.2	3.3							
	13	2	4					5.34		(Scheffe)
Health	80	19.4	3.1	Within	17655.	167	10.52		.01	a<b
		6	7	Groups	86	2			0	
Art	67	20.7	3.1							
		6	4							

Notes * P <.05, Tech&sci= Technical and science

As seen in Table 2, Academic self-efficacy of university students differs significantly in terms of their grade levels, $F_{(3,1674)}=3.73, P<.05, \eta^2 =.007$ Scheffe multiple comparison results showed that academic self-efficacy levels of senior year students($M=20.39, SD=3.16$) are significant higher then sophomore year students ($M=20.39, SD=3.16$). The results of analysis of variance pointed that academic self-efficacy does not differ significantly when perceived academic success in high school considered $F_{(2,1677)}=2.21 P>.05, \eta^2=.003$. On the other hand academic self-efficacy of university students significantly. When perceived academic success in high school is considered $F_{(2,1674)}=105.73, P<.01, \eta^2 =.113$.Dunnet C multiple comparison which was held in order to determine the sources of these differences revealed that the difference in the average point of those who perceive themselves as unsuccessful ($M=18.04, SD=3.37$) and successful in medium level ($M=19.65, SD=3.01$) and successful in medium level and successful ($M=21.52, SD=3.07$) are statistically significant. Moverover self-efficacy is found to differ significantly according to the study $F_{(3, 1672)}=5.34 P<.05, \eta^2 =.010$. Scheffe multiple comparison analysis results revealed that students who are studying in the field of social science ($M=20.22, SD=3.34$ have higher academic self-efficacy points when are studying in the students studying in field of technical and physical education($M=19.65, SD=3.09$)T.

The result of one-way analysis of variance related to whether academic self-efficacy of university students significantly differ according to some variables related to the family(education level of the parents, income of the family number of members and sibling in the family and the dwelling unit where the student lived the longest) are shown in Table 3

TABLE 3. ANOVA Result for Academic self-efficacy by family-related variables

Variables	N	\bar{X}	SD	Source	Sum of squares	df	Mean Square	F	η^2	Post Hoc comparison
Educational level of Mother										
Illiterate	10	20.3	3.4	Between Groups	60.66	4	15.17	1.43	.003	
Primary	6	20.2	3.3							
El.edu	6	19.9	3.0							
High sch	2	19.9	3.2							
University	25	19.9	3.3	Within Groups	17773.59	167	10.61			--
Educational level of Father										
Illiterate	28	20.8		Between Groups	52.37	5	10.48	.99	.003	-
Primary	34	20.2								
El.edu	30	20.1								
High sch	53	19.9								
University	44	19.9		Within Groups	17771.89	167	10.62			
Master/Ph.D	26	19.8								
Perceived economic situation family										
Low ^a	62	20.4	3,3	Within Groups	63.86	2	31.92	3.01*	.004	(Scheffe) b<a
Middle ^b	10	19.8	3.2							
High ^c	56	20.2	3.2	Within Groups	15826.56	167	10.61			
Number of individuals in the family										
2 ^a	14	20.0	3.1	Between Groups	13.45	4	3.36			
3 ^b	33	19.9	3.0							
4 ^c	65	20.1	3.3	Within Groups	17810.82	167	10.64	.32	.003	
5 ^d	31	19.9	3.2							
6 and upper	22	19.9	3.4							

		Number of siblings							
1 ^a	11	19.6	3.2	Between	48.61	4	9.7		
	4	6	2	n					
2 ^b	80	20	3.1	Groups					
	3		9						
3 ^c	43	20.0	3.3					.91	.00
	6	2	5						3
4 ^d	16	20.4	3.1	Within	17775.	167	10.62		
	3	7	6	Groups	66	4			-
5 ^e	65	20.1	3.3						
		4	5						
6 and upper	10	19.9	3.5						
	3	6	4						
		Dwelling unit where the student lived the longest							
City ^a	11	20.0	3.2	Between	16.426	3	5.47		
	30	9	6	n					
Town ^b	39	19.9	3.3	Groups					
	1	4	5					.51	.00
Village ^c	59	19.9	3.2	Within	17807.	167	10.63		1
		1	5	Groups	83	5			
Other	99	19.7	2.9						
Coutr ^d		6	3						

As seen in Table 3 academic self-efficacy of university students does not significantly differ in terms of mother level of education [$F_{(4, 1674)} = 1.43, P > .05, \eta^2 = .003$], father level of education [$F_{(4, 1674)} = .3, P > .05, \eta^2 = .003$], number of Sibling [$F_{(5, 1675)} = 1.91, P > .05, \eta^2 = .003$], and the dwelling unit where the students lived the longest [$F_{(3, 1675)} = .51, P > .05, \eta^2 = .001$]. On the other hand academic self-efficacy of students significantly differ in terms of income of the family [$F_{(5, 1673)} = 3.01, P < .05, \eta^2 = .004$], Scheffe multiple comparison test results revealed that academic self-efficacy levels of students with higher level of economical perception ($M = 20.27, SD = 3.27$) are significantly higher e middle level economical perceptible ($M = 19.88, SD = 3.21$).

Discussion

In this study whether academic self- efficacy of university students differ statistically significantly or not in terms of various educational and family-related variables was investigated. The finding of the study that academic self-efficacy of male students is higher then female is consistent with the result of some of the studies in the related literature (Millburg 2009, Nie, Lau et al. 2011). on the other hand the findings contradict with some of the studies claiming the academic self-efficacy of female students is higher then male (Dentlinger 2004). The result of the studies points that the relationship between the academic self-efficacy gender relationship will be made clear by the future studies. Although we got the

impression that academic self-efficacy gets significantly higher in upper classes when senior presented higher academic self-efficacy compared to sophomores there was no significant difference in all other grade levels. As a matter of fact there are ambiguous result consistent with the study. While some studies suggest that academic self-efficacy gets higher in upper grade levels(Poyrazli, Arbona et al. 2002, Goodall and Montgomery 2014)some others claimed that as the grade levels get lower academic self-efficacy of the students lower accordingly(Wuebbels 2006) The finding of the study suggesting thst there is no significant difference between perceived high school success of university students and their academic self-efficacy is inconsistent with similar studies in the literature. When the literature is explored it is seen that previous success of students affects their self-efficacy positively. According to (Bujack 2012)students academic success until their school life shape their academic self-efficacy positively in their current educational duties. Moverover(Banfield 2009) states that the most important factor contributing to shape self-efficacy is past success and emphasizes the importanceof past success on academic self-efficacy. In this respect, I would be wise to indicate that this finding of the study is not an expected result and it is open to question.

The finding of the study claiming that academic self-efficacy of the students who perceive themselves successful is higher when compared to students who perceive themselves unsuccessful or their success is on aveals that the level of individual successes is an important factor in raising the perception of academic self-efficacy. As a matter of fact this finding which is an expected result of the relation between academic success and academic self-efficacy is in parallel with similar study of the literature(Joo, Bong et al. 2000, Chemers, Hu et al. 2001, Kraft and Dougherty 2013).

It is seen in the study that academic self-efficacy of social sciences students is higher when compared to students of the department of Psysicaleducation ,Fine art technique and Eneineering . Although the number of studies in the literature is scarce there is a partial parallelism of this study with the results of the study conducted by (Millburg 2009) study.

Although it is thought that when education level of parents is higher they more attention to the education of their children thus academic self-efficacy of the students will be higher (Credé and Phillips 2011) the result of this study does noy confirm this perception. Moreover it is found this study that the children of illiterate parents have higher academic self-efficacywhen compared to academic self-efficacy of other students. However this finding of the study is consistent with(Kemp 2011) remarks that negative environment effect could enhance academic self-efficacy. As illiterate parents supported their childs successes since they had the chance to make a difference thay probably contribute to their children academic self-efficacy positively. In the study it is also found that academic self-

efficacy of students with a middle level economic situation of the family is lower than the ones with the higher level economic situation of the family.

This finding of the study suggests that since students with a higher economic situation of the family have more qualified education opportunities and have more qualified education experiences this possibly strengthens their academic self-efficacy. As a matter of fact this result of the study is consistent with a similar study (Tong and Song 2004) in the literature. Another finding of the study stating that the number of the family members do not have any effect on academic self-efficacy of university students is inconsistent with studies in the literature claiming that the larger the family the higher the academic self-efficacy of the individual (Kemp 2011). However, it could also be considered that when the number of family members increases the attention that the individual could have in a small family will be lower and this could lower academic self-efficacy of the student. It was determined in the study that academic self-efficacy of the students does not differ according to the number of siblings they have. In other words, having one or more siblings does not mean to be advantageous in academic self-efficacy. Since having more siblings means to have more family members, it is understandable for the finding of this study to be in parallel with the finding related to the number of family members. Since there is no statistically significant difference between academic self-efficacy on university students and the dwelling unit they lived in, the longest suggests that there are no relations between the dwelling units and academic self-efficacy of individuals. This might also suggest that it is not the place but whether the individual had positive or negative experiences in the place might be more determinative for academic self-efficacy. If it is necessary to indicate one important limitation of the study, the sample of the study consists only of students who were studying in GC University Faisalabad at the time. In this respect, it would be inconvenient to generalize the study result to all the university students.

As a result, it is seen that academic self-efficacy of university students differs significantly in terms of various educational and family-related variables. Hence, conferences to emphasize the importance of academic self-efficacy could be held for academicians, teachers, and parents; this way their awareness on the subject could be raised. Additionally, psycho-educational programs could be structured for students to try to raise their academic self-efficacy levels.

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