

SELF EFFICACY AND ACADEMIC PERFORMANCE OF THE STUDENTS OF GUJRAT UNIVERSITY, PAKISTAN

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ABSTRACT

The current study was conducted to explore the relationship of self efficacy and the academic performance in terms of CGPA of the students of University of Gujrat. For this purpose an indigenous scale was designed on the basis of theoretical model of Bandura's four sources of self efficacy (Mastery experiences, vicarious experiences, Verbal/social persuasion and Physiological and emotional states). The local scale was named as Academic Self Efficacy Scale (ASES). Initially 65 items were presented to expert for construct validity. The selected 40 items were administered in pilot study on 50 students to refine the scale. The statistical analysis showed good internal consistency (0.81) and 28 items confirmed the above mentioned model by loading on four factors. For field study a sample of 193 students was selected by using simple random sampling technique from 3rd semester of the faculties of Social and Basic Sciences. The data was analyzed by using SPSS 16.0 V. The findings indicated a significant positive relationship between Self Efficacy and academic performance of the students. Further the difference in the level of academic self efficacy with respect to gender was also shown by the results.

Keywords: Academic Self Efficacy, Mastery Experience, Vicarious Experience, Verbal/social persuasion, Physiological and emotional state

INTRODUCTION

Self-efficacy refers to one's personal beliefs in their ability to organize and perform a course of action required to reach a desired target. On the other hand Academic self-efficacy refers to the believe one has in their ability to accomplish or carry out a task or attain a specific performance outcome. Bandura (1997) defined, "Self Efficacy as people's judgments or beliefs of their capabilities to organize and execute courses required attaining designated types of performances. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses". (p.4)

Self-efficacy is, how well a person will act upon at almost any challenge. A person's self-efficacy is a strong determinant of their effort, determination, strategizing as well as their following performance (Heslin & Klehe, 2006). Bandura (2006) offered a set of guidelines for the development of self-efficacy scales. He described self-efficacy as a "set of self-beliefs linked to distinct realms of functioning" rather than a global trait. He took self-efficacy as a unique and different construct from similar constructs such as self-esteem, confidence, and outcome expectancies. Further he asserted that the measures of self efficacy should measure self efficacy only which is more precise and limited than self-confidence. Self-confidence is a universal personality quality that refers to how boldly people take actions in most situations and self-esteem is the extent to which a person evaluates himself or herself, it is generally also more enthusiastically developed than self-confidence or self-efficacy (Heslin & Klehe, 2006).

Thus Academic Self efficacy is operationally defined as a student's belief for his/her own capabilities that he/ she can accomplish a given task and can produce desired outcomes. These beliefs are developed on the basis of positive or negative past experiences, by observing other students, teachers or role models who are in quite similar situations or are similar in abilities and skills and perform well or poor, by receiving positive or negative feedback from others and by their positive and negative emotional states.

Sources of Self-Efficacy

Bandura (1997) argued that students interpret information by using their self-efficacy beliefs from four major sources. These sources are given below:

Mastery Experiences

Bandura (1997) considers mastery experience the most significant source of the interpretation of results of one's own prior achievements. He believed that judgments of one's ability are formed or revised when students interpret the outcomes of the academic tasks completed by them. The feelings of success can raise their confidence level and they can use their skill to do similar tasks in future but the sense of failure may work oppositely.

Vicarious Experience

On the other hand students also build their efficacy beliefs by observing others. Thus models can play an influential role in the formation of the beliefs of self-efficacy. Bandura (1997) narrates, "Students are most likely to modify their beliefs following a model's success or failure to the degree that they feel similar to the model" (p. 8). An "A" grade attained by a class mate in a difficult assignment may encourage other students to complete the task.

Verbal/Social Persuasion (Influence)

The feedback that students receive from others on their abilities and accomplished tasks is another source of self efficacy. The beliefs of their academic capabilities can be firm and improved by the encouragement from parents, teachers, and peers. At times they may depend on their parents, teachers, peers and significant others for evaluate and judge the tasks completed by them or about their skills and abilities. According to Usher and Pajares (2006) positive feedback from significant others is a reliable source of increasing and strengthening the confidence. The students can make, revise and reject their self efficacy related beliefs.

Physiological and Emotional States

Students interpret anxiety (worry or unease), stress (strain or tension), fatigue (weakness or low energy), and mood when they judge their competence. Students learn to evaluate their own performances as they experience different physiological states, and they interpret their incentive as indicators of efficacy at personal level. Strong emotional reactions to school related tasks can provide clues to expected success or failure (Usher & Pajares , 2006).

Importance of Self-Efficacy for a Student

Self-efficacy refers to person's belief of being able to perform a specific activity. In contrast to self esteem which refers to self worth and respect, self-efficacy reflects to what extent students are assured about performing particular tasks. Piper and Siegal (2000) reported, "Self-efficacy influences: (1) what activities students select, (2) how much effort they put onward, (3) how continual they are in the face of difficulties, and (4) the difficulty of the goals they set".

LITERATURE REVIEW

Reyes (2010) conducted a study to find the level of efficacy of high school students in the subjects of Math and English on the basis of their gender. Results suggest that there is a significant relationship students' performance on the both of subjects and self efficacy. However no significant difference has been located on male and female perceived efficacy on both subjects. Results also implied Self-efficacy as a good predictor of academic performance on both subjects.

Kfaween (2010) conducted a study on Self-efficacy among 364 (female=173) students of the University. He found the relationship with specialization of the students but there was no significant difference in the level of self efficacy on the basis of gender. Similarly, the results of the study of Williams and Takaku (2011) on gender, and writing self-efficacy showed no gender differences on the basis of writing self-efficacy belief but a significant gender difference has been indicated with respect to writing performance. Herman (2005) studied the relationship of self-efficacy with a range of personality and psychological adjustment variables (e.g. "instrumentality, expressiveness, social self-efficacy, depressive symptomatology, loneliness, self-esteem, self-monitoring and symptoms of depression") in a sample of 699 (female=350) college students. He tested self monitoring as a possible moderator in the relationship between social self-efficacy and depression, social self-efficacy and self-esteem. The results showed that self-monitoring doesn't moderate either of the relationships.

Devonport and Lane (2003/2004) investigated self-efficacy and coping strategies amongst undergraduate students. It was suggested that academic self efficacy may be enhanced due to the use of coping strategies such as seeking advice and time management on the part of student. The results confirmed a significant relationship between self-efficacy and active coping.

Salami (2010) studied the role of emotional intelligence, self-efficacy, and psychological well-being in academic behaviors and attitudes of the students. It was concluded that students with high self-efficacy and emotional intelligence used to participate in academic activities actively therefore developed positive attitudes that resulted academic success. Zajacova, Lynch and Espenshade (2005) investigated the effects of academic self-efficacy and stress on academic performance. They recorded the responses of students for 27 college-related tasks. The results indicated that self-efficacy is a more tough and consistent predictor of academic success than stress. Sharma and Lindstorm (2006) studied the effect of gender and prior formal physics instruction s' on physics self-efficacy of the students. They found that both variables significantly effect the physics efficacy. On the other hand females showed lower self-efficacy than males throughout the study.

SIGNIFICANCE OF THE STUDY

The present study is conducted to develop and test the validity of questionnaire measuring self efficacy of students within the context of academic domain. As self efficacy is commonly defined as the belief in one's capabilities to achieve a goal or an outcome, it is quite clear from the definition that self efficacy beliefs play an important role in achievement therefore this study will be helpful in understanding the basic sources of self efficacy and its impact on student's performance.

This study will help out the teachers in the university to understand the nature of self efficacy and especially the importance of factors that contributed toward the development of self efficacy beliefs. It will help the teachers to use such strategies or techniques such as credible communication, feedback, guide the student through task and motivate them to make their

best effort to complete the given task. It will also help the teachers to introduce cooperative learning strategies among students in which students work together and help one another as it has a dual outcome of improving both self efficacy and academic achievement. As Fencl and Scheel (2005) reported that teaching strategies used in class room can and do make difference to student's self efficacy.

This study will also help the counselors working in universities to understand the importance of this concept in order to help the students to believe in themselves and use effective strategies to cope with stressful situations in academic settings such as exams, presentations etc. This research will also help the further researches in this particular area.

OBJECTIVES

The present study has the following objectives.

1. To find the relationship between academic performance (CGPA) and self efficacy of the students.
2. To know the difference in the level of self efficacy on the basis of gender

HYPOTHESIS

Hypothesis of the present study was as follows.

H1: There is a positive relationship between self efficacy and academic performance of the students.

H2: There is a significant difference in the self efficacy of the students on the basis of their gender.

METHOD

Participants

The target population of the present study was students from University of Gujrat. Population consisted of male and female students of the faculties of social and basic sciences. These students were studying in 3rd semester of the Masters program. The lists of students were obtained from concerned departments of University of Gujrat. The total number of population was 371. Out of which 219 were female students. A sample of 193 students (F=128) was selected through simple random sampling.

Tool/Instrument

A local Academic Self efficacy scale was developed on the basis of Bandura's four sources of self-efficacy within the context of academic performance. This pool of 65 items was presented to professionals to establish evidence of face or content validity. Each of the professional independently evaluated each item keeping in view the concepts of item sampling and item validity. After that the researcher deleted some items, added some items, revised a number of items. The selected 40 items were administered on 50 students in pre testing. Cronbach's alpha .81 showed good internal consistency. Factor analysis was run with varimax rotation on the responses of the 40 items. The results and screen plot showed four factors which had items loading at or above 0.30. The rest of items were deleted from the scale and final set of scale comprising of 28 statements were obtained 7 items for mastery experiences (1,3,4,6,7,8,9), 3 items for vicarious experiences (2, 5, 10), 10 items for verbal and social persuasion (11,12,13,14,15,16,17,25,27,28), 8 items for physiological and emotional states (18,19,20,21,22,23,24,26). The final set of questionnaire was then used for conducting field study with sample of 193 university students. In which all

questionnaires were personally handed over to all the participants, they responded to each item on a five point Likert scale. The participants were informed that their identity will be kept confidential and the information provided by them will be used only for research purpose. The higher the scores on the scale the more the academic efficacy of the students. The final scale showed good internal consistency ($r = 0.896$)

RESULTS

The data collected in field study was entered in SPSS V. 16.0. Pearson correlation was run to know the relationship between self efficacy and CGPAs' of the students (see Table 1). T- test was used in order to test the second hypothesis (Table 2).

Table 1. Correlation among Self Efficacy and CGPA of the students (N=193)

<i>r-value</i>	<i>p-value</i>
.764	.000***

*** $p < .0001$

The results show that there is a highly significant positive relationship between two variables ($r=.764$, $p = .000$). It means the higher the total scores of self efficacy of the students at ASES the higher their CGPAs'.

Table 2. Gender difference on the basis of four sources of self efficacy (N=193)

	<i>Gender</i>	<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>
Mastery Experiences	Male	65	26.09	3.40	3.62***
	Female	128	23.96	4.05	
Vicarious Experiences	Male	65	11.67	2.11	1.88
	Female	128	11.04	2.23	
Social persuasion	Male	65	38.00	4.10	4.17***
	Female	128	35.03	4.91	
Psychological States	Male	65	28.38	4.58	5.68***
	Female	128	24.66	3.66	

** $p < .0001$

Table 2 showed a significant difference in the scores of the students at four sources of self efficacy on the basis of their gender. Male students showed higher level of mastery experience ($\bar{x}= 26.09$, $t= 3.62$, $p < .0001$); social persuasion ($\bar{x}=38.00$, $t= 4.17$, $p < .0001$); and psychological states ($\bar{x}=28.38$, $t= 5.68$, $p < .0001$). However there is no significant difference in vicarious experience but mean values show that male are slightly higher.

DISCUSSION

The results indicate that there is a positive relationship between self efficacy and their academic performance in terms of CGPA. The results are in consistent with the previous

researches. Self efficacy increases the positive beliefs about study as well as the confidence and self esteem of the students thus leads towards good academic performance.

The study also explored the difference in self efficacy of the participants on the basis of their gender. Results reveal that there is a significant difference in the level of self efficacy of respondents with respect to their gender as male students showed high level of self efficacy as compared to female students. There is a significant difference in the level of mastery experiences, social persuasion and level of psychological state of students with respect to their gender as male students showed high scores on ASES efficacy as compared to female students. The results of previous study support the findings of present study (Sharma & Lindstorm, 2006). However Zeldin et al., (2008) reported gender difference on Mastery experiences but not on the rest of three components. On the other hand the study conducted by Noble (2011) indicated gender difference on vicarious experience. The male participants reported higher scores. It was also shown that men's beliefs were supported by family, friends, and peers. It is known that these characters play a major role in the development of self efficacy beliefs.

Results of this study revealed that that there is a significant difference in the level of psychological states among male and female students. It is because females mostly prepare in advance for exams, presentations etc whereas males mostly prefer to work at the last moment because of which they feel more pressure.

The possible reason of gender difference may be due to the cultural and social realities are different in Pakistan. They are given preference to females by their families. They are being included in every decision of the house. Thus males are dominating and enjoy freedom of doing anything therefore they have high level of self efficacy as compared to females who faced many restrictions. The male has fair chance to work in collaborative environment with other students. In Pakistan the girls are shy and their friendships are limited. Usually they make friends with the permission of their significant others.

CONCLUSION

The both of hypothesis of the present study were accepted. The results of the present study showed there is a significant positive relationship between the self efficacy of the students and their academic performance. Further there is a difference in the level of self efficacy of respondents with respect to their gender as male students showed high level of self efficacy as compared to female students.

RECOMMENDATIONS

The study can be conducted on larger sample size by including the students of other disciplines also. Those have not been including because of limitations of sources in present study. The subject specific academic self efficacy can also be explored. The reliability and validity of ASES should be estimated in future. A training program for the teachers as well as for the students can be designed to improve the self efficacy of the students. The teachers can be trained to improve the self efficacy of their students by adopting different teaching strategies like collaborative teaching, peer learning and so on with special focus on female students. The students themselves should be trained to enhance their Self Efficacy also.

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