



**ACADEMIC SELF-EFFICACY IN RELATION TO ACADEMIC ACHIEVEMENT OF
SENIOR SECONDARY SCHOOL STUDENTS OF HARYANA**

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Abstract

This study explored relationship and gender differences in Academic self-efficacy and academic Achievement among senior secondary school students of Haryana. The data was collected from 400 students (200females and 200males). For the purpose of sampling the whole Haryana state was divided into five zones, i.e. North, East, South, West and Central. One district from each zone was selected by Random Lottery Method i.e.Rohtak, Ambala, Gurgaon, Hisar and Mohindergarh. From the selected schools (2 from each district) 40 students (20 male + 20 female) of +1 stage were selected using lottery method making a total sample to 400. Academic Self Efficacy scale (developed by Dr. R.K.Bhaker and Ms. Arti Pasricha)was used to measure Academic self-efficacy and the Cumulative grade point average CGPA of the class 10th to measure the academic achievement of the participants. The data was analyzed using descriptive and inferential statistics. The Pearson correlation coefficient was used to see the relationship between Academic self-efficacy and academic achievement. T-test was used to compare male and female subjects in Academic Self efficacy and academic achievement. The results of the study showed that there was no significant difference between males and females on Academic self-efficacy. A significant relationship was found between the students 'Academic self-efficacy and academic achievement. Also, a significant difference was found between High and Low

Achievers on Academic Self-efficacy. From the findings, it was recommended that Teachers should make clear, the importance of Academic Self-efficacy for Academic success and try to raise the self-efficacy level by various means such as- verbal persuasions, mastery experiences and vicarious experiences keeping in mind the individual differences. Teacher's attitude and enthusiasms will create better environment conducive for development of academic self-efficacy beliefs in struggling adolescents.



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Introduction:

“Self efficacy is the belief in one’s capabilities to organize and execute the sources of action required to manage prospective situations.”(Bandura, 1986)

The concept of self-efficacy is an important construct in social cognitive theory (Bandura, 1986). The theory holds that self-referent thought mediates between knowledge and action, and consequently individuals evaluate their own experiences and thought processes through self-reflection. The process of self-reflection includes a focus on our beliefs about self, which in turn includes an evaluation of the extent to which we exercise control over our self. It is an evaluation of our control over our beliefs, values, attitudes, environment and behavior (Bandura, 1977, 1997). The focus on self in the sense of personal agency can be regarded as perceived self-efficacy (Bandura 1977, 1997).

Self-efficacy, also called perceived ability, refers to the confidence people have in their abilities for success in a given task (Bandura, 1997). If they possess the ability to successfully perform, then that task will be attempted. The task will be avoided if it is perceived to be too difficult (Bandura, 1986, 1997). Although inefficacious individuals usually avoid challenging tasks, when they do attempt them they give up more easily than individuals with high efficacy. When inefficacious individuals fail, they attribute the unsuccessful result to a lack of ability and tend to lose faith in their capabilities. When they succeed, they are more likely to attribute their success to external factors (Bandura, 1986, 1997). If students master a challenging task with limited assistance, their levels of self-efficacy will rise (Bandura, 1986). Individuals who

possess a high degree of self-efficacy are more likely to attempt challenging tasks, to persist longer at them, and to exert more effort in the process. If highly efficacious individuals fail, they attribute the outcome to a lack of effort or an adverse environment. When they succeed, they credit their achievement to their abilities. It is the perception that their abilities caused the achievement that affects the outcome rather than their actual abilities (Bandura, 1986). The theory is clearly illustrated in the following quote-

"If I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning" - Mahatma Gandhi

Academic self-efficacy

Bandura (1982b, 1997) places great emphasis on self-efficacy as a specific rather than a general concept. In this view, self-efficacy represents a dynamic, multifaceted belief system that operates selectively across different activity domains and under different situational demands, rather than being a decontextualized conglomerate (Bandura, 1997, p.42). Researchers have explored the utility of Bandura's (1977, 1997) theory of self efficacy in a wide range of settings for understanding behavior for over 20 years. Self efficacy is essentially an individual's belief in his or her ability to perform a specific task or behavior. Bandura (1997) emphasized that self-efficacy is not a general quality possessed by individuals, but rather specific beliefs an individual may have around particular tasks or behaviors. For example, an individual with higher social self-efficacy is said to have greater confidence in his or her ability to interact with others socially. In the academic context, students' beliefs about their abilities to achieve academic tasks successfully, i.e. their academic self-efficacy beliefs are strong predictors of their ability to successfully carry out those tasks (e.g. Bandura, 1997; Skaalvik & Skaalvik, 2008). It is a multidimensional construct that varies according to the domain of demands (Zimmerman, 2000), and therefore it must be evaluated at a level that is specific to the outcome domain (Bandura, 1986; Pajares, 1996). Thus, in academic settings, one should measure academic self-efficacy rather than generalized self efficacy, where academic self-efficacy refers to students' confidence in their ability to carry out such academic tasks as preparing for exams and writing term papers. Students' perceptions of their efficacy to regulate their own learning and to master academic activities determine their level of motivation and academic accomplishments (Bandura, 1993).

Students are believed to act if their acts boost feelings of competence, control and effectiveness (Bandura, 1997).

Self-efficacy is task-specific; that is, self-efficacy beliefs are specific to certain tasks and activities in certain situations and contexts (Bandura, 1977, 1986, 1997; Jackson, 2002). That is to say, people do not have the same level of overall sense of self-efficacy; rather, a person's level of self-efficacy beliefs depends on the nature of the task and the context in which that task is performed. This is the reason why self-efficacy has been studied extensively, within a variety of specific areas such as academic, social, career, clinical, athletics, and health (Bandura, 1997). Therefore, the self-efficacy which is pertinent in academic setting is academic self-efficacy, an individual's self-evaluation of his/her capability and/or chances for success in the academic settings (Robbins et al., 2004), which is the focus of the current study. Various studies have demonstrated that students who have high levels of academic self-efficacy beliefs have good feelings, behaviours, and positive thinking; can motivate themselves for actions and act accordingly; strive for achievement; persist longer when they encounter difficulties and until they get the solution; believe that failure is a temporal problem which they can manage; and attempt and use all possible ways to handle troubles and maintain their course of actions; are not frightened and challenged by difficult assignments and tasks rather they consider them as an opportunity for learning and mastery (Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995). Consequently, these characteristics enable them to be successful in their academic achievement. On the contrary, those students who have low self-efficacy beliefs may not be interested to perform a task, they feel threatened when they face complex situations and attempt to avoid them; they are less devoted to achieve the set goals and may try to escape from cognitively oriented goals and tasks; and they immediately attribute their failure to lack of ability to persist in the face of adversities (Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995). Therefore, these researchers have documented that self-efficacy beliefs affect task choice, goal-orientation, effort, determination, flexibility, and achievement.

Academic self-efficacy, according to (Chemers, Hu, and Garcia, 2001), is the ability and confidence of a student to master academic subjects and to "...make greater use of effective cognitive strategies in learning, manage their time and learning environments more effectively and...monitor and regulate their own effort".

Academic Self-Efficacy Among Adolescents

In both the schools and the larger society, the onset of adolescence marks a profound shift in expectations regarding students' ability to assume responsibility for their functioning. When students enter middle or junior high schools, they are no longer under the direct control of a single teacher but instead are taught by a number of teachers in different classrooms, often with different classmates. These adolescents are expected to personally manage these diverse requirements for learning in class or to seek out help when it is needed, especially from their teachers. At this middle level of schooling, a significant part of students' academic work is completed outside of class, including reading assigned texts, writing papers, and preparing for tests. Adolescents' success in making this developmental transition is complicated by a major increase in the difficulty of the academic work that is assigned in middle or junior high schools (**Wigfield, Eccles, & Pintrich, 1996**). If adolescents fail to regulate this demanding academic environment effectively, their academic grades will likely decline—often leading to a loss of self efficacy about succeeding in school. As their self-efficacy diminishes, adolescents can become embedded in a downward cycle of academic achievement that may involve aligning themselves with peers who possess unfavorable views about the value and importance of school (**Steinberg, Brown, & Dornbusch, 1996**). Conversely, adolescents with a strong sense of efficacy for learning are more resilient and better able to resist the adverse academic influences of low-achieving peers than are those with a weak sense of efficacy (**Bandura, Barbaranelli, Caprara, & Castorelli, 1996**).

To succeed in school, adolescents develop diverse self-regulatory skills, such as goal setting, self-monitoring, time management, and self-evaluation. Homework assignments must be transformed into personal goals; study time needs to be allocated prudently; and completion of the goals needs to be self-monitored closely. Adolescents also must learn powerful strategies to enhance various forms of learning, such as note taking, help-seeking, storing and recalling information, reading, writing, and test preparation (**Zimmerman, Bonner, & Kovach, 1996**). Strategies are also beneficial in assisting them to manage out-of-school extracurricular activities, such as music or sports (**Cleary & Zimmerman, 2001; McPherson & Zimmerman, 2002**). Unfortunately, adolescents are often poor at setting goals and anticipating the consequences of various courses of action. As a result, they fail to employ effective task-specific strategies such

as preparing for tests. Effective strategies can be learned through observation of successful models and from personal experiences with success and failure. Self-regulated students cope with failure in a sequence of cyclical self-processes without experiencing a loss of self-efficacy and this resilient sense of self-efficacy can sustain their efforts to learn in a self-directed way. This belief in one's self regulative capability to attain goals is the core of a resolute sense of personal agency.

Academic Achievement

The world is becoming more and more competitive. Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for a high level of achievement puts a lot of pressure on students, teachers, and schools and in general on the educational system itself. In fact, it appears as if the whole system of education revolves round the academic achievement of students though various other outcomes are also expected from the system. Thus a lot of time and efforts of the educational institutions are used for helping students to achieve better in scholastic endeavor.

Achievements in the educational situation has frequently been referred as scholastic achievement which signifies various aspects of learning as '*Ability to learn*', '*Scholastic aptitude*' '*Measures of motivation*' '*Level of aspiration*' and '*Creative capacity*' **Wikipedia: The Free Encyclopedia (2011)** also defines educational or academic achievement as specified level of attainment proficiency in academic work as evaluated by the teacher, by standardized tests or by combination of both. Further **Dictionary of Education (2003)** defines "*Academic achievement means the knowledge attained or skills developed in school subjects, usually determined by test score or by marks assigned by teacher or both.*"

In the common terminology, academic achievement refers to the level of attainment in various subjects as indicated by marks or grade points. It may be the attained ability to perform school subjects (English and English). Thus academic achievement refers to marks or grade obtained in subject taught in school after an examination be it written or oral. These marks or grades have been considered the criterion of academic achievement. Academic achievement also means the attained level of students functioning, in school task such as Language, Mathematics, Science etc. as shown b school marks.

Academic Self Efficacy And Academic Achievement

It is widely accepted that students' academic success is influenced primarily by their cognitive abilities. That is, students with great intellectual potential will often succeed at a higher level than will students with lower ability. However, given that the correlation between IQ and achievement is typically only in the moderate range, it seems reasonable to suggest that cognitive potential does not always translate into attained success. Just as there are intellectually gifted individuals who do not perform well, there exist many lower ability students who perform at or above age or grade expectations. Although it is clear that many variables interact to produce this phenomenon, we will consider the role that self-efficacy perceptions play in determining how well individuals perform academically.

Various studies have demonstrated that students who have high levels of academic self-efficacy beliefs have good feelings, behaviours, and positive thinking; can motivate themselves for actions and act accordingly; strive for achievement; persist longer when they encounter difficulties and until they get the solution; believe that failure is a temporal problem which they can manage; and attempt and use all possible ways to handle troubles and maintain their course of actions; are not frightened and challenged by difficult assignments and tasks rather they consider them as an opportunity for learning and mastery (**Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995**). Consequently, these characteristics enable them to be successful in their academic achievement. On the contrary, those students who have low self-efficacy beliefs may not be interested to perform a task, they feel threatened when they face complex situations and attempt to avoid them; they are less devoted to achieve the set goals and may try to escape from cognitively oriented goals and tasks; and they immediately attribute their failure to lack of ability to persist in the face of adversities (**Bandura, 1977, 1994; Pajares, 2002; Schunk, 1991, 1995**). Therefore, these researchers have documented that self-efficacy beliefs affect task choice, goal-orientation, effort, determination, flexibility, and achievement. Perceived academic self-efficacy is defined as “personal judgements of one’s capabilities to organize and execute courses of action to attain designated types of educational performances” (**Zimmerman, 1995, p. 203**). (**Bandura, 1977**) developed scales to measure perceived academic self-efficacy to assess its level, generality, and strength across activities and contexts. In terms of academic functioning, self-efficacy *level* refers to variations across different levels of tasks, such as increasingly difficult

math problems. Self-efficacy *generality* refers to the transfer of self-efficacy beliefs across activities, such as different academic subject matters. Finally, self-efficacy *strength* in academics is measured by degrees of certainty that one can perform given tasks (Zimmerman, 1995).

Statement Of The Problem

“Academic Self Efficacy in relation to Academic Achievement of Senior Secondary School Students of Haryana”

Objectives

Following objectives were set for the study:-

1. To study and compare the Academic Self-efficacy of male and female Adolescents.
2. To find out the relationship between Academic Self-efficacy and Academic Achievement of Adolescents.
3. To find out the difference in Academic Self-efficacy between Low Achiever and High Achiever Adolescents.

HYPOTHESES

In consonance with objectives, the following hypotheses were formed for verification in the present study.

1. There is no significant difference on academic self efficacy of male and female adolescents
2. There is no significant relationship between Academic self efficacy and academic achievement.
3. There is no significant difference between High Achiever and Low Achiever Adolescents on Academic Self-efficacy.

Sample

To meet the requirement of the present study, all the adolescent students (males and females) of 11th class studying in C.B.S.E. affiliated senior secondary schools of Haryana state constitute the population. Of this universe, a representative sample of 400 such students has been chosen through the technique of random sampling. The investigator also tried to ensure proper representations of all the parts of the state in the study. This has been done by selecting 5 districts from Haryana from five zones East, West, North, South randomly. A list of all C.B.S.E. affiliated senior secondary Schools was drawn from website of Ministry of Education, Haryana for the concerned chosen districts. 80 respondents were selected from each representative district

of each all five zones with the help of random sampling techniques and a initial data of 40 were collected. Besides being convenient, district is an important and universal politico-administrative unit throughout India and consequently Haryana as well. The investigator has adopted all precaution to find a normally distributed sample for his study. All data were collected in proper process as mentioned in Manual of the tools used in the present study by self effort and in adequate time. Hence, effect of intervening variable and extraneous factor on results may found to minimum.

Instrument Used:

Academic Self Efficacy Scale: Academic Self Efficacy Scale was developed and standardized by the Dr R.K. Bhaker and Ms. Arti Pasricha (2014) on the lines of Bandura (2006). The scale is comprised of 36 items pertaining to five dimensions i.e. (A) Items pertaining to Self-efficacy in enlisting social resources, (B) Items pertaining to Self-efficacy in self-regulated learning. (C) Items pertaining to Self-efficacy in class participation. (D) Items pertaining to Self-efficacy in time-management. (E) Items pertaining to Self-efficacy in study and examination. Each item is followed by five alternatives ranging from ‘Extremely not confident’ to ‘Extremely confident’ depicting degree of confidence in different academic settings. The options Extremely confident, Fairly confident, Confident, Hardly confident and Extremely not confident carries scores 4, 3, 2, 1 and 0 respectively. The score of each respondent is obtained by adding the scores on all the individual items under each dimension of Academic Self-efficacy. The possible maximum score of an individual is 144. The corresponding score, for the option encircled is counted. The sum total of all the 36 items provides the overall Academic Self-efficacy score of an individual. A high score on the scale indicates high Academic self-efficacy, while a low score on the scale indicates low Academic Self-efficacy.

The Cumulative grade point average CGPA of the class 10th was used to measure the academic achievement of the participants.

Results

Academic Self-Efficacy Among Adolescents Male And Females

In the pursuance of the objective 1, i.e. “To find out the difference between adolescent males and females on Academic Self-efficacy”, the mean, standard deviation (S.D.), t-value of two variables of the sample have been calculated, as given in table:1

Table:1 Academic Self-Efficacy Among Male And Female Adolescent

Variable Academic Self-efficacy	Size of the Sample (N)	Mean	S.D	t-value	Level of Significance
Males	200	84.96	21.28	0.74	NS
Females	200	86.51	20.34		
df = 398		* Value of Significance at .05 level = 1.97 **Value of Significance at .01 level = 2.59 NS = Not Significant			

Table: 1 shows that mean values of male and female adolescents are 84.96 and 85.51 respectively on Academic Self-efficacy. The S.D. of male and female adolescents is 21.28 and 20.34 respectively. It is desired to be known whether significant difference exists between male and female adolescents on Academic Self-efficacy. The table shows that with the degree of freedom 398 the t-value is 0.74, which is statistically not significant. Hence, the hypothesis 1, “There is no significant difference between Adolescent males and females on Academic Self-efficacy” is retained. It means male and female adolescents on Academic Self-efficacy are equal.

Relationship Between Academic Self-Efficacy And Academic Achievement Of Adolescents

In the pursuance of the objective 2 “To study the relationship between Academic Self-efficacy and Academic Achievement of Adolescents”, the coefficient of correlation of the sample calculated by employing Pearson’s Product Moment Method is shown in table-2

Table-2 Academic Self-Efficacy And Academic Achievement Of Adolescents

Variables	Size of the Sample (N)	Mean	Std. Deviation	Pearson’s Correlation coefficient (r)	Level of Significance
Academic Self-efficacy	400	85.73	20.80	.273**	.01
Vs					

Academic Achievement	7.79	1.19
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df = 398

* Value of Significance at .05 level = .098
 **Value of Significance at .01 level = .128

It may be revealed from the Table: 2 that the value of coefficient of correlation between Academic Self-efficacy and Academic Achievement of adolescents is .273. It represents a significant negative relationship between the two variables. The obtained coefficient of correlation is found to be significant at .01 levels of significance.

Thus, the null hypothesis “There is no significant relationship between Academic Self-efficacy and Academic Achievement of Adolescents” is rejected. It seems fair to interpret that the Academic Self-efficacy and Academic Achievement are related to each other.

Thus, it implies that significant bond of correlation exists between these two sets of variables, i.e. Academic Self-efficacy and Academic Achievement of adolescents.

Academic Self-Efficacy Among Male And Female Adolescents And Academic Achievement

In the pursuance of the objective 3, i.e. “To find out the difference between high achiever and low achiever male and female adolescents on Academic Self-efficacy”, the mean, standard deviation (S.D.), t-value of two variables of the sample have been calculated, as given in table-3

Table -3 Academic Self-Efficacy Among High Achiever And Low Achiever Male And Female Adolescents

Academic Achievement	Size of the Sample (N)	Mean	S.D	t-value	Level of Significance
High Achiever	100	93.36	20.96	4.58	.01
Low Achiever	75	79.31	19.16		

df = 173

* Value of Significance at .05 level = 1.97
 **Value of Significance at .01 level = 2.59

Table: 3 shows that mean values of high achiever and low achiever male and female adolescents are 93.36 and 79.31 respectively on Academic Self-efficacy. The S.D of high achiever and low achiever male and female adolescents is 20.96 and 19.16 respectively. The table shows that with the degree of freedom 173 the t-value is 4.58, which is statistically significant.

Thus the null hypothesis 3, i.e. “There is no significant difference between high achiever and low achiever male and female adolescents on Academic Self-efficacy” is rejected. It seems fair to interpret that there is significant difference between high achiever and low achiever male and female adolescent on Academic Self-efficacy. This means that like the male and female samples taken individually, the total sample (male and females taken together) register the same trend. Therefore, those adolescents who have low academic achievement are more academically Self-efficacious in comparison to those who have high academic achievement.

Conclusions And Discussion

Academic Self-efficacy of male adolescents, female adolescents and overall sample is positively related to Academic Achievement. Also study reveals that there is significant difference between academic self-efficacy of high and low achiever male, female and overall sample. Many researchers have reported a direct positive relationship between academic self-efficacy and academic achievement (e.g., Bandura et al., 1996; Caprara, Barbaranelli, & Pastorelli, 1998; Chemers, Hu, & Garcia, 2001; Greene, Miller, Crowson, Duke, & Akey, 2004; Pintrich & Degroot, 1990; Schunk, 1994; Sharma & Silbereisen, 2007; Zimmerman & Bandura, 1994). The finding is supported by Kirmizi (2015) High achieving students were also found to be better than low achieving students in terms of self-efficacy.

Educational Implications

The results of this study indicate that self-efficacy beliefs are an important variable that contributes to the development of good study habits, better personality and high academic achievement. Thus focus should be made to build stronger self-efficacy beliefs among adolescents. Thus, academic self- efficacy beliefs among students can be enhanced by designing interventions and activities to address these factors. Counseling center personnel appear to be the most qualified of the student services professionals to provide these services. Academic counseling can be designed to raise awareness of personal abilities and successes as well as to identify shortcomings and provide interventions to address those shortcomings. Counselors

utilizing theory-rich approaches, grounded in social-cognitive theory, can assist students in increasing their sense of personal efficacy. To help struggling learners with low self-efficacy, and get them to invest sufficient effort and persist on challenging tasks, teachers must systematically develop high self-efficacy within these students.

Teachers should make clear, the importance of Academic Self-efficacy for Academic success and try to raise the self-efficacy level by various means such as- verbal persuasions, mastery experiences and vicarious experiences keeping in mind the individual differences. Teacher's attitude and enthusiasms will create better environment conducive for development of academic Self-efficacy beliefs in struggling adolescents

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