
Relationship between Self-Efficacy and Anxiety of Secondary School Students across Gender Group

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Abstract: In the present study we have investigated the correlation between self-efficacy and anxiety of 95 secondary school students from 4 Government Schools (affiliated to H.P.S.E.B., Dharmshala) of Hamirpur district of Himachal Pradesh, India were selected. Out of 95 students 45 were female and 50 were male. Random sampling method was used to collect the data. The study revealed that, there is a high negative correlation between self-efficacy and anxiety of secondary school students. It is also observed that there is a significant difference in self-efficacy but no significant difference in anxiety among male and female students.

Key Words: *Self-Efficacy, Self-Belief and Anxiety.*

Introduction:

Self-efficacy refers to an individual's belief in his or her own competence within a specific context. Albert Bandura (1997) defined self-efficacy as an individual's conviction or belief regarding his or her capability to successfully achieve a desired outcome. Bandura identified four major sources through which self-efficacy expectations are developed and modified: (1) performance accomplishments, i.e., successful execution of a task; (2) vicarious learning or modeling; (3) verbal persuasion, such as encouragement and support from others; and (4) emotional arousal, such as anxiety experienced while performing a behaviour. The last source is considered a co-effect of self-efficacy expectations. In other words, anxiety is inversely related to the level of self-efficacy; when self-efficacy increases, anxiety decreases, and vice versa (Hackett & Betz, 1983).

Mathematics self-efficacy has been found to be a significant predictor of mathematics anxiety (Hackett, 1985; Hackett & Betz, 1989; Pajares & Miller, 1994). According to Bandura

(1977), how individuals think and feel about themselves greatly influences their actions, particularly when facing challenging situations. Owing to this importance, educators and researchers have increasingly focused on the study of self-efficacy.

Anxiety is one of the self-related constructs associated with self-efficacy. Bandura's (1986, 1997) Social Cognitive Theory suggested that negative psycho-emotional states such as anxiety, depression, and helplessness are associated with lower levels of self-efficacy (Lee, 2008). Anxiety may be described as a feeling of unpleasantness, uneasiness, apprehension, or worry. It is often accompanied by physical symptoms such as rapid heartbeat, trembling, and faintness. Anxiety may arise as an abnormal reaction to stress or concern and may sometimes indicate a broader psychological issue. Charles D. Spielberger conceptualized anxiety as an unpleasant emotional state characterized by activation of the autonomic nervous system and described it as a sequence of cognitive, affective, and behavioural responses occurring in reaction to stress.

Anxiety may also manifest as a psycho-emotional reaction when an individual thinks about or performs a particular task (Ashcraft, 2002; Hembree, 1990; Pintrich & DeGroot, 1990; Sarason & Sarason, 1990; Spielberger, 1985). Thus, self-efficacy is considered an influential variable in human behaviour, playing a crucial role in determining the choices people make, the effort they exert, their persistence in the face of challenges, and the degree of anxiety or confidence they experience while performing a task. Lee (2008) observed that despite extensive research on self-related constructs, limited attention has been given to examining whether self-concept, self-efficacy, and anxiety are empirically distinguishable from one another. Therefore, the present study aims to examine the relationship between the two self-related constructs—self-efficacy and anxiety—across gender groups.

Objectives:

1. To study the gender difference in self-efficacy of secondary school students.
2. To study the gender difference in anxiety of secondary school students.
3. To find the relationship between self-efficacy & anxiety.

Hypotheses:

1. There will be no significant difference in the self-efficacy score of male female students.
2. There will be no significant difference in anxiety scores of male and female.
3. There will be no relationship between self-efficacy and anxiety.

Method:

Sample: For this study a sample of 95 secondary school students from 4 Government Schools (affiliated to H.P.S.E.B., Dharmshala) of Hamirpur district of Himachal Pradesh, India, were selected. Out of 95 students 45 were female and 50 were male. Random sampling method was used to collect the data.

Tools: Researcher has used “The General Self-Efficacy Scale” by M.Schwazer and R. Jerusalem (1995) and IPAT Anxiety Scale by R.B. Krug and I.H. Scheier to measure general anxiety among Secondary School Students.

Statistical Technique: Researcher has used mean, standard deviation (S.D.), t-test and the product moment method to test the null hypotheses.

Alalysis and Interpertation:

The obtained co-efficient of correlation value is -0.084 and the tabulated value at 0.05 level is 0.205 and 0.01 level is 0.265. Hence there is a negative correlation between the self-efficacy and anxiety. Thus it is concluded that higher the self-efficacy lesser will be the anxiety of secondary school students.

Table -1
Mean S.D. & t value of self-efficacy across gender variable

Group	Male	Female	t-value	Significant Value
Mean	32.24	36.14		
S.D.	5.18	2.58		
Sample	N1=45	N2=50	t = 4.58	*

*Significant at 0.01 level

Calculated value of „t“ is greater than the tabulated value. This means that the null hypothesis is rejected. Thus there is a significant difference in the self-efficacy scores of male and female group.

From table 2 it is found that calculated value of „t“ is lesser than the tabulated value thus the null hypothesis is not rejected i.e. it is accepted at any level of significance. It may be interpreted that there is no significant difference in anxiety scores between male and female groups. The obtained difference is attributed to sampling error or chance factor.

Table -2
Mean S.D. & t value of anxiety across gender variable

Group	Male	Female	t- Value	Significant Value
Mean	35.3	34.2		
S.D.	6.99	2.58		
Sample	N1=45	N2=50	t = 4.58	*

*Non-Significant at 0.01 level

Observation and Conclusion:

1. There is high negative correlation between self-efficacy and anxiety of secondary school students.
2. There is a significant difference in the self-efficacy of male and female secondary school students.
3. There is no significant difference in anxiety of male and female of secondary school students.

References:

1. Ashcraft, M.H. (2002). Math Anxiety: Personal educational and cognitive consequences. Bandura, A. (1977) .Social learning theory, New York: General Learning Press.
2. Bandura, A. (1986). Social foundations of thought and action: A Social Cognitive theory.
3. Englewood cliffs, NJ: Prentice Hall.
4. Bandura, A. (1997). Self-efficacy: The exercise of control. New York: Freeman.
5. Hackett, G. (1985). The role of mathematics self-efficacy in the choice of math related majors of college women and men: A path analysis. Journal of counseling psychology, 32, 47-56.
6. Hakett, G&Betz, N.E. (1989). An exploration of mathematics self-efficacy/ mathematics performance correspondence. Journal research in mathematics education, 20(3), 261-273.
7. Hakett, G&Betz, N.E. (1983). The relationship of mathematics self-efficacy expectation to the selection of science-based college majors. Journal of vocational behavior, 23,329-345.

8. Hembree, R (1990). The nature effects and relief of mathematics anxiety. *Journal for research in mathematics education*, 21, 33-46.
9. Lee,J.C.(2008). Universals and specifics of math self-concept, math self-efficacy and math anxiety across 41 PISA 2003 participating countries. *Learning and individual differences*.
10. Pajeres,F. &Miller, M.D.(1994). Role of self-efficacy and self-concept beliefs in mathematical problem-solving: A path analysis. *Journal of educational psychology*, 86,193-203.
11. Pintrich, P.R. & Degroot, E.V. (1990) Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
12. Sarason, I.G. &Sarason, B.R. (1990). Test anxiety. In H. Leiterberg (Ed.) *Test anxiety: Theory, research and application*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 3-14.
13. Spielberg, C.D. (1985). Assessment of state and trait anxiety: conceptual and methodological issues. *Southern psychologist*, 2, 6-16