

Achieving Self-Efficacy, An Applied Method (ASEAM): An Educational-based Approach - Case Study in IRAN

Azadeh Kardani^[1]Mojdeh Kardani^[2]Mitra Kardani^[3]

Abstract:

ASEAM is a training-based method for reducing anxiety and depression based on Bandura's theory of increasing self-efficacy. Our goal is to study the effects of practicing ASEAM with adolescents to improve their self efficacy and reduce their anxiety and depression. The target population are students between the ages of 16-18 who have consulted with a counselor or a psychologist in southern Tehran from 2007-2008. Ninety (90) of these students were randomly selected to participate in this study. They were divided into two groups—control and experimental. Schwartz's (1999) self efficacy questionnaire and Beck's (1971) anxiety and depression questionnaire were used in collecting the data. A single variable, one-way ANCOVA t-test was used to analyze the data from the two groups. It is demonstrated that self-efficacy is neither a permanent structure nor personality traits, and can be improved using ASEAM to increase the self-efficacy among the participants. Our findings show a significant positive effect of practicing ASEAM on improving adolescents' level of self-efficacy. Additionally, it is shown that the impact of practicing ASEAM on female participants is more tangible than their male counterparts.

Keywords: *Self-Efficacy, Belief-System, Self, Cognitive Behavioral Therapy*

I. INTRODUCTION

Bandura (1995) believed that we create our own belief-system, which frames our universe and evaluates our experiences. Some of these beliefs have potential for development and reflect a dynamic self, and consequently a dynamic universe. These beliefs also unify our motif system, affecting our decision-making, perseverance, and constant efforts in achieving our goals. The belief-system causes better mannerism, health, and life satisfaction, leading to better quality of life. Additionally, it seems the belief-system combined with an individual's strengths and weaknesses is the root of many problems and hardships that they might face in their lifetime.

In the recent years, Bandura's Social-Cognitive theory has been developed alongside methods of cognitive therapy. We have used self-efficacy, one of the most important aspects of Bandura's theory. Self-Efficacy beliefs play a unique and basic role in an individual's (especially adolescent) quality of life, which is also part of this belief-system.

Adolescence is a very critical period of time when individuals reach their peak in finding their identity and independence. Consequently, some personality traits like depression, loneliness, and anxiety with illogical beliefs converge. Therefore, the increase in self-efficacy beliefs results in the decrease in depression and anxiety.

According to Bandura, (1997) self-efficacy beliefs are cognitive processes in psycho-pathology known as "dysfunctional." They directly affect self-assessment or low perceived self-efficacy, which has a pivotal role in reducing depression, anxiety and other emotional states. Inefficacy is caused by social conditions and life events, and can lead to

vain beliefs, feelings, sadness, and anxiety. Self-efficacy beliefs have four sources: mastery experiences, vicarious experiences, verbal or social persuasion, and somatic and emotional states. Earlier, Bandura (1995) emphasized an individual's perception of their own self-efficacy as a cognitive mediator, and that self-efficacy is one of the human agency's mechanisms for an individual to perceive competency for overcoming or coping with a specific situation. He added that people judge their competency in doing or evaluating something, and their judgment affects their thoughts, emotions, and behaviors, reflecting the way individuals count on their capability in coping with critical situations.

Bandura and Locke (2003) discuss that self-efficacy beliefs regulate an individual's performance through cognitive, emotional, decision making, provoking procedures. These beliefs affect the way people think, cope with predicaments, make decisions in critical situations, and assess individual vulnerability after depression. As such, an individual's self-expectation of their efficacy should be considered as a ruling factor in studying and developing the confronting behaviors. These confronting models depend on appropriate perception of the situation, experience, and level of self-confidence in establishing confronting behavior. James Rowen (2002) also believes that the increase in self-efficacy is one of the direct predictive factors in an individual's motivating standard. Self-efficacy has a serious effect on one's motive standards and acceptable behavior.

Based on psychoanalysis, the inter-personal experiences between a mother and child in the early stages of life have an

^[1]Department of Family Consulting and Educational Psychology, Azad University of Ahvaz, Ahvaz, Iran; Tel: +989167323258; Email: omid_kardani@yahoo.com

^[2]Department of Clinical and Educational Psychology, University of Science and Research, Tehran, Iran;

^[3]Department of Educational Psychology, Payame Noor University, Mashhad, Iran;

important role in developing self-mastery experiences. Whatever the other gives as feedback to the “self” creates one’s parental-self, which may change through the “self” development. Epstein (1973) believes that individuals discover their possible-selves after the parental-self process. Possible-self reflects an individual’s beliefs about who they may become, and their present and probable future characteristics-- their favorite ones and the ones they are afraid of. The possible-self plays two roles in an individual: as a motive and for future behavior, and as an analytical reason and basis for evaluation in their present point of view. Marcus and Nurius (1986) state that possible-selves work as a connecting chain between cognition and motivation, while Higgins (1987) categorizes the possible-selves as the desired ones that people try to achieve and the undesired ones which people try to avoid.

The gap between an individual’s real-self and their desire-self shows their level of self-efficacy. Since self-efficacy in an individual is a belief showing a particular behavior, the more individuals can stay away from their parental-selves, the more they can improve their self awareness regarding their real characteristics. Consequently, they will experience a higher level of self-efficacy and can develop their possible-self. Self-efficacy determines an individual’s desired possible-self and the amount of effort they need to develop to get to those desired-selves. Therefore, the closer an individual is to the desirable possible-self, the higher the level of self-efficacy will be. As Bandura claims, the skills people acquire throughout treatment, their life experience, and their emotional and psychological states alongside the control they have over these states are the main factors of self-efficacy improvement.

Higgins (1987) states that Schunman defines three sources in establishing an individual’s self:

- Self observation: Individuals evaluate and re-evaluate their actions via observations to gain self awareness, self thoughts, and mental and emotional conditions. Consequently, an individual may use these observations/evaluations to change and eliminate some bad habits. This source of self-development controls our thoughts, emotions, and our cognition in general through self-regulation. This source can also be considered as a cause of many psychological and temper-disorders and their treatment. Buffard Buchard (1991) states that there is a relationship between self-efficacy and self-observation- individuals with high self-efficacy are interested in practicing self observation and achieving better self-control.
- Social comparison: Festinger (1954) believed that social comparison is an important source in self-development and evaluation. This source helps individuals to keep their self-evaluations firm and fair. He continues that people prefer to evaluate themselves based on tangible traits and mannerisms. In the absence of these mechanisms as an index for evaluation, people compare themselves with others. This source of self-development is used by children in their early years. This concept is consistent with Bandura’s third factor in increasing self-efficacy. Hence, if this concept of comparison is valid, it will lead to an increase in self-efficacy.
- Social feedback: Social feedback has been credited in interpersonal collaboration theories as an important factor in developing self. People use social feedback about themselves in developing their self awareness. Schunman (1984) found that children make better use of this source as they are growing older, and according to Piaget (1970) the less children are echo-centered the more they understand social feedback. Additionally, as they grow older these social feedbacks become less effective in developing in comparison to their early adolescence years. The impacts of social feedback on self development can also be justified through the effect of verbal comparison on improving self-efficacy. When the emphasis of the feedback we receive from the others is on our capabilities and our self values, they will affect and improve our self-efficacy. Social feedback and social-comparison with those in higher social ranks can cause emotional tensions that can lead to low self-esteem, low motivation and low self-efficacy.

Many studies have been done to show the relationship between high or low self-efficacy and the decision-making process along with confidence in competency, such as Ehernberg (1991), Jackson (2002), Endler (2001), Morris (2002), and Pajares and Schunk (2002). Morris, for example, believes that high competency and low self-efficacy beliefs reduce the chance of finding appropriate solutions for the predicaments and fulfilling the tasks. Social learning theories emphasize the importance of merging learning principles and an individual’s thinking and reasoning role in the development of depression and anxiety.

Ellis (1980) believes that illogical beliefs are the primary reasons for anxiety and depression. This finding is consistent with Bandura’s self-efficacy theory and demonstrates the relationship between people’s beliefs and their self-efficacy level. In Bandura’s theory the importance of incorporating the learning principles with the role of an individual’s thinking and reasoning is emphasized, and is effective in treating anxiety disorders and depression, which is consistent with Ellis’ claim. Bandura’s view also suggests that illogical beliefs about individuals’ competencies can cause low self-efficacy and the logical ones can cause the opposite. When people are confronted with tension, they show better performance and efficacy if they have logical processes.

The first hypothesis in attribution theory is that the most important motivation resource in human being is the search for understanding and reasons behind events. Weiner (1985) assumed a three-level classification for describing an individual’s attributions towards success and failure: i) Personal, internal and even situational (external) factors, ii) Permanent or temporary factors, and iii) Manageable or unmanageable factors.

Individuals judge their self-efficacy as a function of their competencies. Pajares (2002) states that people’s judgment about their capabilities is required in organizing and doing various things which need a specific performance. Hence, people attribute success and failure to stable and unstable internal factors like “competency” or “ability” and “effort” respectively, while self-efficacy is ruined when people misattribute their failure to stable internal factors and their success to unstable external factors like “luck” or “ease of task.”

When individuals describe their performance, different types of attribution can bring them various motive and emotional consequences. They feel better about themselves and others after a success rather than after a failure. According to Weiner, the externalizing or internalizing of the attributions affects an individual's emotions in regards to their self-esteem in showing their actions which consequently affects their self-efficacy. Attributing a success to internal factors like "effort" and "competency" makes an individual proud of themselves, improving their self-efficacy. Likewise, when they attribute their failure to the external factors like "chance" and "task difficulty" they feel less embraced [not sure what is meant by "embraced"—do you mean embarrassed?] and it doesn't impact their self-efficacy. In this work, we will study the impact of ASEAM on increasing adolescent self-efficacy and, the positive results we have achieved with regard to our research hypothesis.

II. METHODOLOGY

The case study was carried out in a popular and robust way comprising of the following components.

Population

Participants were adolescents between the ages of 16-18 from low socio-economical families and with a minimum 3.8 grade point average who had consulted counselors or psychologists in Southern Tehran, Iran from 2007 to 2008. (GPA was used as an indicator of IQ)

Sample Size

One hundred students were randomly selected as primary sampling units. They were divided equally into two groups (Experimental and Control group). After dropouts of 4-5 students per group, 90 students were included.

Sampling procedure

Five counseling centers were randomly selected out of 15 centers in southern Tehran; using the list of patients for cases from 2007 to 2008, a list of potential participants was assembled. A final random list was compiled from the pool of potential participants, and a random sampling of participants was done. Finally, the selected participants were randomly divided into two groups—experimental and controlled group.

Experimental Procedure

Participants of both groups answered self-efficacy, anxiety, and depression questionnaires as a pre-test. The objectives of an eight-session training to include expectations in or out of training sessions and time management were defined. Two months later both pre-test groups answered the same post-test questionnaires.

Hypothesis

We experimented with the following two hypotheses:

ASEAM increases the level of self-efficacy among adolescents.

ASEAM has the same effect in decreasing stress and depression in male and female adolescents.

Treatment

The experimental group in this study attended eight one-hour sessions that included practical assignments according to Bandura's four sources of self-efficacy. The control group attended the same number of hours and discussed various problems; however, no specific training was provided for them.

Session I: The various concepts of self and the ways they are developed were taught to the participants. They were asked to identify their "selves," to specify the characteristics that others relate to {identify with/} them, and to specify characteristics they would both like and dislike to have.

Session II: Participants were familiarized with desired and undesired selves. Moreover, they were able to recognize their current traits which helped or hindered their progress towards achieving their desired self. Our goal was teaching different aspects of self to them to increase their self awareness and consequently improve their self-efficacy.

Session III: Different sources of self-development were taught according to Schunman (1984) theory, alongside the balanced use of various resources.

Session IV: The effects of unbalanced use of the resources, causing depression and anxiety, were discussed. Participants were taught how to use self-observation to improve their self-efficacy based on their own experiences and internal reasoning.

Session V: Five wrong cognitive beliefs were discussed: the idea of all or nothing, over-generalization, mind filtering, ignoring positive sides, and jumping to conclusions. Participants were asked to share their experiences regarding these beliefs.

Session VI: Five additional wrong cognitive beliefs were discussed: exaggeration, emotional reasoning, must statements, stereotyping, taking things personal, and blaming. Participants shared personal experiences.

Session VII: Different methodologies to correct the wrong beliefs such as thinking in dark shadows, reviewing the evidence, dual criteria, identifying key words, and profit-loss analysis were taught with active participation and real-life experiences.

Session VIII: Weiner's attribution theory and consequences of constructive or destructive attribution were taught. Participants were asked to identify their own attribution style that they have used in their life experience. Additionally, they were guided toward the attributions which would improve their self-efficacy and their self-image.

Instrumentation

We used Beck's (1971) anxiety and depression questionnaire and Schwartz (1999) self-efficacy questionnaire. Schwartz's questionnaire has 10 items that evaluate an individual's general self-efficacy. These items are designed based on Bandura's theory. Participants answered these questions within Likert's four-degree scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). Answers were assigned a numerical value of 4, 3, 2, and 1 accordingly. Therefore, the scores ranged from 10 (the lowest self-efficacy) to 40 (the highest self-efficacy).

The questionnaires' final coefficients were examined using Cronbach's Alpha with a sampling size of n=20. As a result, Beck's anxiety-questionnaire had a correlation of 73%, the depression-questionnaire had a correlation of 86%, and the self-efficacy questionnaire had a coefficient of 88%.

III. RESULTS AND DISCUSSION

We used a one-way single variable ANCOVA test base on the three requirements of ANCOVA test, equality of variances, correlation between auxiliary variable (pretest) and dependent variable (post-test), and equality of regressions. The following tables show the various results.

Table-1: Levin Variance: Self-Efficacy variable

Significance Level	F	df1	df2
--	0.432	1	58

Since the observed F (3.615) is less than the critical F (4.00) with 1 and 58 degree of freedom (df) with P < 0.05 with the chance of 95%, the hypothesis based on variance equality for the experimental and controlled group is accepted.

Table-2: Regression homogeneity test for studying the impact of teaching self-efficacy on adolescents' self-efficacy

Source	Sum of Squares	Df	Mean of Squares	F	Significance Level
Treatment	96.395	1	96.395	19.889	0.000
Pre-test	558.812	1	558.812	115.297	0.000
Correlation between ASEAM & Treatment	3.321	1	3.321	0.685	0.411
Error	271.416	56	4.487	---	---

The pre-test in this table refers to the second assumption of ANCOVA, and examines the correlation between auxiliary variable (pre-test) and dependent variable (post-test). Since the observed F (115.297) is greater than the critical F (7.08) [P<0.01]; df 1, 56], we are 99% confident that the null hypothesis referring to the relationship between auxiliary and dependent variable is rejected and the two variables are thus related.

The observed F (0.685) for the counter action between treatment and the pre-test is smaller than the critical F (4.02) [df 1, 56; p < 0.05]. Therefore, with 95% certainty we can reject the hypothesis focusing on the difference between auxiliary and dependent variable in both groups; in the other words, both variables show some correlation in both groups.

Table-3: Summary of ANCOVA for studying the impact of teaching self-efficacy on adolescents' self-efficacy

Changes Source	Sum of squares	df	Mean of squares	F	Significance level
Pre-test	577.830	1	577.830	119.883	0.0
ASEAM indicator	1152.686	1	1152.686	239.149	0.0
Error	274.736	57	4.82	---	---

Table 3 shows the observed F(239.149) is more than critical F (7.08) [P < 0.01, df 1,57]. According to the data, the mean of the post-test score for the experimental group (23.04) is higher than the mean of the controlled group (12.23). Hence, the null hypothesis which suggested no difference between the two groups is rejected, and ASEAM is found effective in improving adolescent self-efficacy.

Additionally, in order to study the effect of ASEAM on gender (the difference between boys and girls), we used t-test independent groups whose results are given in Tables 4 and 5.

Table-4: Mean and standard deviation of scores (Girls and boys, ASEAM method)

Variable	Gender	Mean	SD	ESM
Anxiety	Girls	7.13	1.407	0.363
	Boys	6.73	2.052	0.530
Depression	Girls	7.40	1.183	0.306
	Boys	5.93	2.120	0.547

Table-5: T-Test comparing boys and girls in ASEAM

		Test of Variances		Test of Means			
		F	Sig. Level	T	df	Significance Level	Mean Diff. Error of Mean Diff.
Stress	Equality of Variances	5.501	0.026	0.623	28	0.539	0.40 0.642
	Inequality of Variances			0.623	24.788	0.539	0.40 0.642
Depression	Equality of Variances	4.884	0.035	2.340	28	0.027	1.47 0.627
	Inequality of Variances			2.340	21.949	0.029	1.47 0.627

Anxiety: According to Table 4, the observed two-tailed t is smaller than critical t [p<0.05, df: 0.28]; therefore, the null hypothesis regarding the equality of anxiety means in two different gender groups is accepted. The anxiety means are not different between boys and girls based on anxiety variable and the effect of ASEAM in reducing anxiety is not rejected the same for boys and girls in this experiment.

Depression: According to Tables 4 and 5, since the observed two-tailed t (2.340) is more than critical t (2.048) [p<0.05, df 28]; therefore, the null hypothesis suggesting the equality of depression means for boys and girls is rejected as they differ significantly. Also, as the observed depression mean for girls (7.40) is more than the one observed for boys (5.39), ASEAM helped girls more than boys in fighting depression in this experiment.

IV. CONCLUSION

Results of post-test data analysis indicate the anxiety and the depression means of the experimental group's method is higher than the controlled group's result post-test. Therefore, with a 99% reliability the null hypothesis suggesting the null relationship between practicing ASEAM and self-efficacy improvement is rejected, and we can conclude that the materials, techniques, and assignments were appropriately selected for this study on adolescents; ASEAM has thus been successful in the attempt of improving self-efficacy in eight sessions.

It is worth mentioning that participants who had difficulty answering the question "Who am I?" before the training sessions were relying on their parental-self and other social factors were labeled and perceived a large gap between their actual-self and their possible desired-self. Clearly, when people lack cognition and awareness about their own "self", they define themselves based on others' feedback and their internal failures as they do not consider themselves competent. Attending the sessions on "the definition of self and its different kinds" helped them to discover their strengths and weaknesses and to stay away from their parental-self to find their possible desired-self. Likewise, learning and practicing the Schunman theory helped participants of the experimental group to establish a balance among the use of each source in developing themselves, and learning different types of attribution using Weiner's theory reduced the anxiety in the experimental group by improving their awareness about destructive or constructive attributions leading to self-efficacy.

Throughout this training, participants realized that one dimensional and excessive use of one source can cause anxiety, depression, and lack of self-efficacy. Furthermore, they noted that more use of self-observation sources is more effective in self-belief than social-comparison and social feedback making them to believe in themselves even more.

Bandura (1997) indicated that those who maintain higher self-efficacy prefer to practice self-observation and are more successful in controlling their behaviors; with that in mind the participants of the experimental group could also have learned about wrong cognitive process and the importance of having logical beliefs, both of which would have improved their self-efficacy.

In summary, all assumed hypotheses suggesting the positive the positive relationship between practicing ASEAM and self-efficacy were proved. Also, we can conclude that self-efficacy is not a constant factor or a personal characteristic in some individuals, and as such can be manipulated, learned, and improved. Since adolescents are in self-recognition stages, where other people's feedback is very important in realizing their ideals and failure in achieving their ideals or being accepted and recognized is a factor of depression, ASEAM was very effective.

Since ASEAM has have similar impact on male and female participants and no gender biased question was included in the questionnaire, ASEAM does not have any gender-bias scopes it is certain that ASEAM has similar effects on male and female students. It is our opinion that the better performance of girls regarding their depression after

practicing ASEAM shows the higher lack of self-efficacy among Iranian girls due to cultural factors. Based on this, in addition to twelve-years of personal experience in counseling, I have also concluded that one of the important reasons for depression among Iranian girls is their social limitations and social expectations as in comparison with their counter-parts boys while girls have less maneuvering space. Hence, this lack of equilibrium in social factors stresses the girls more than the boys, causing depression in them. However, based on this study, under equal conditions when the girls are educated about themselves via self-recognition and self-improvement, they can balance between these limitations and their external and internal conditions and reduce their depression.

Comparison with other studies: The results of this work are of significance since the other projects in this field have studied the correlation between the level of self-efficacy and other variables. For instance, Bower (1991) proved that an individual's sadness is significantly affected by their self-efficacy beliefs. Ehrenberg (1991) discovered that the general self-efficacy has negative relationship with depression, while Morris (2002) carried out research on a very large sample of Dutch adolescents to find out the relationship between self-efficacy and emotional disorder symptoms. The results showed that low self-efficacy leads to high level of anxiety and depression.

Pajares and Urdan (2007) studied the relationship between self-efficacy and students' anxiety reactions in Mathematics. The results showed that students' performance mainly depends on their self-efficacy beliefs rather than their anxiety level. On the other hand, the result of this study are not in agreement with the results from other studies- for instance, Pajares and Schunk (2002) found that gender difference in self-efficacy plays an important role in people's career selecting, while Pintrich (1994) stated in his study that there is not a significant difference between girls and boys in self-efficacy variables and exam anxiety.

Suggestions and Future Studies: Since ASEAM challenges adolescents more in self-awareness and causes more internal changes, it is suggested that counselors use this method in solving adolescents' problems regarding their depression, anxiety, or even confusion in establishing an identity. This method reduces their reluctance in attending therapy sessions and prevents their dependence on the counselors as the way out.

In this study IQ was used as a control variable because of the importance of fast comprehension, creativity and collaboration needed while practicing ASEAM. Therefore, having normal IQ was a necessity in order to test participants in this method. It is suggested that this self-efficacy method should be avoided and replaced by other methods for adolescents with lower IQ who need step-by-step guidance.

Future studies in the following topics are highly recommended:

- Effects of ASEAM on reducing aggression and adolescents' rebellion;
- Effects of ASEAM on reducing anxiety and depression in adults;

- Effects of ASEAM on adolescents from high socio-economic background;
- Effects of ASEAM on adolescents from mixed socio-economic background;
- Effects of ASEAM on adolescents with a different cultural background from those in this study (i.e. Iranians living abroad).
- Comparative effects of ASEAM among adolescents from different cultural backgrounds (i.e. Iranians living in Iran VS. those living abroad).
- Comparative effects of ASEAM among adolescents with different cultural backgrounds (i.e. Iranians VS. Non-Iranians) to show the influence of growing up in a religious state

V. REFERENCES

- Bandura, A. (1995). "Self-efficacy In changing societies.", UK : Cambridge University press.278-290.
- Bandura, A. (1997). "Self-efficacy: The exercise of control", New York : Freeman.165-180.
- Bandura, A., & Locke, E.A. (2003). "Negative self-efficacy & goal revisited.", *Journal of applied psychology*. Vol. 88, No.1,87-99.
- Boufford – Bouchard, T., & Parent, S. (1991). "Influence of self-efficacy on self-regulation & performance among Junior & Senior high school. ", *International Journal of behavioral development*. Vol. 14, No.2, 153-164.
- Bower, G.H. (1991). "Mood congruity of social judgment." In J.P. Forgas (Ed), *Emotion and social judgments*. Pergamon Press, University of new south wales, 32-54.
- Bussey, K., & Bandura, A. (1999). "Social cognitive theory of gender development & differentiation. ", *Psychological Review*. Vol. 106, No.4, 676-713.
- Ehrenberg, M. F., & Koopman, R. F. (1991). "The relationship between self-efficacy & depression in adolescents. " *Journal of adolescence*, Vol. 26, No.102, 361-374.
- Ellis, A. (1980). "Rational –Emotive therapy and cognitive –behavioral therapy: Cognitive therapy and research, vol.4, No.4, 325-340.
- Endler, N. S., & Kocovski, N. I. (2001). " Coping efficacy & perceived control in acute Vs chronic illnesses. ", *personality & individual differences*, Vol. 30, Issue 4, 617-625.
- Epstein, S. (1973). " The self-concept revisited ". *Journal of American psychologist*, Vol. 28, 404-416.
- Festinger, L. (1954). "A theory of social comparison processes. *Human Relations*. Vol.7, 117-140.
- Hackett, G. (1995). "self-efficacy in career choice & development ". UK. Cambridge University Press. 260-275.
- Higgins, E. T. (1987). "self-discrepancy: a theory relating self & affect. ", *advances in experimental social psychology*. Vol.22, 94-97.
- Jackson, W. Jay. (2002). "Enhancing self-efficacy & learning performance. " *The journal of Experimental education*, Vol. 70, No.3, 243-254.
- James Rowen, Susan (2007). "I think I can : parenting self-efficacy in parents of young adolescents. " for the degree of doctoral. Massachusetts University.
- Markus, H. & Nurius, P. (1986). "possible selves ". *Journal of American psychologist*. Vol. 41, No.9, 954-969.
- Morris, P. (2002), "Relationships between self-efficacy & Symptoms of anxiety disorder & depression in normal adolescent sample.", *personality & individual differences*. Vol. 32, Issue 2, 337-348.
- Pajares, F. (2002), "Overview of social cognitive theory & self-efficacy. " California, Santa Clara University Press. 314-335.
- Pajares, F. & Urdan, T. (2006), "self-efficacy beliefs of adolescents". California, Santa Clara University Press. 45-97.
- Pintrich, P., & Schunk, D. (1996), " motivation in education: theory, research & application. ", Englewood. N. J. prentice Hall. 67-149.
- Piaget, J. (1970). "piaget's theory". Carmichael's manual of child psychology. Vol.1. New York, Wiley. 75-90.
- Schunk, D. H., & Pajares, F. (2004), " self-regulation through goal setting.", ch.6. In Dennis. M. Mcinerney & Shawn. V, Etten (Ed). *Big theories revisited*. Information age publishing. 115-138.
- Weiner, B. (1985). "An attributional theory of achievement motivation and emotion." *Psychological Review*. Vol.92, No.4, 548- 573.