Effectiveness of Problem Solving Skills on Academic Help-Seeking and Self-Efficacy of Female High School Students

Farideh Hamidi, PhD
Department of Education
Shahid Rajaee Teacher Training
University

Zahra Shirdel
Department of Education
Shahid Rajaee Teacher Training
University

The present study aimed to investigate the effectiveness of problem solving skills training on academic help-seeking and self-efficacy of students. The population consisted of high school female students during the academic year of 2011/2012 in Ghaemshahr, Iran. The sample consisted of 50 female students selected through multistage clusteringand they were divided into control and experimental groups (25 students in each group). Research tools included help-seeking behavior questionnaire and general self-efficacy scale (GSES). Problem solvingskills training duringeight sessions (2 hours) was appliedfor one month. Data was analyzed using descriptive statistics and multivariate analysis of covariance (MANCOVA). Results showed that problem solving skills training influenced adaptive help-seeking, avoidance of help-seeking and self-efficacy of students, so that it increased adaptive help-seeking, reduced avoidance of help-seeking and increased self-efficacy of the experimental group compared to the control group. The results of this study have important implications in the field of improved performance and academic achievement of students.

Keywords: Problem solving skills training, adaptive help-seeking, avoidance of help-seeking, self-efficacy

Problem-solving is a skill vital for living in the current era. Today, whether in general or technical fields or in everyday or complex activitiesand especially those who have biggerresponsibilities are drawn to high level thinking skills and

1

in most societies everybody believes that there should be a focus on increasing problem-solving skills.One of the important aims of the modern educational and training systems is training individuals who would be able to easily conquer their problems in daily life and social environment (Selcuk, Caliksan & Erol, 2007). These educational systems help individuals to acquire knowledge, skill and sight necessary for coping with their problems (Altun, 2003). In this matter, Students can seek help from some strategies whenever they are facing a problem. Educational help-seeking has been defined as a strategy for overcominglearning difficulties and improving conversance (Karabenick, 2002). Hence help-seeking is one of the learning strategies that by using it students can recognize their learning and educational difficulties and solve them by means of questioning and seeking help from others. They can use these strategies to achieve skills proficiency and better learning. In fact educational help-seeking includes behaviors such as asking questions from teachers, parents and classmates, asking for more explanation about the problem and getting hints and solutions for the problem and other educational helps(Karabenick and Newman, 2006).

Help-seeking behavior in research history has been studied under these two titles of adaptive help-seeking and avoidance of help seeking. Avoidance of help-seeking refers to a behavior in which a student who is in need of help rejects seeking help and on the other hand adaptive help-seeking refers to the behavior in which the student asks for some hints and explanations about the solution of the problem and this matter helps the student to solve the problems better (Ryan & Pintrich, 1997). Bartholomé, Stahl, Pieschl, and Bromme (2006) through a study concluded that help-seeking behavior improves the performance of a student with lower knowledge to that of students with higher level of

knowledge because students had been trained properly in help-seeking. Young (2009; according to Ryan & Huiyoung Shin, 2011) has found counter relationship between avoidance of help-seeking and cognitive strategies (problem solving strategies) among students. Also Ryan and Huiyoung Shin (2011) through a research reported that self-efficacy has a positive correlation with adaptive help-seeking and a negative correlation with avoidance of help-seeking. Gordon (2012) in studying the correlation among self-efficacy, help-seeking behavior and educational development concluded that self-efficacy and help-seeking behavior are predictors of students' educational development and there is a positive and meaningful correlation between self-efficacy and help-seeking.

Self-efficacy is a part of individual's self-image that is related to individual's beliefs about his/her abilities to do a task which he/she will face in the future (Bandura, 1997). Self-efficacy means that the individual can take the control of a situation and produce positive outcomes. Bandura mentions that self-efficacy has great effect on behavior. As an example, a student with low self-efficacy may not even study for the exam because he/she doesn't believe that it is beneficial (Bandura, 2001). Self-efficacy is one's firm belief in the fact that he/she can perform behaviors necessary for production of desired results. One's general trust is his/her ability in controlling dominating environmental requests (Zahrakar, 2009). Schunk (2001) has used the concept of self-efficacy for various aspects of students' development. According to his view, self-efficacy affects the selection of their exercises. Regarding the importance of students' self-efficacy in all aspects of life, especially in education, there are various ways to improve it that teaching problem-solving skill is one of them. Wollfolk (2004) has reported that if the students believe they can learn if they try

reasonably, they would try harder and in facing the problems they would be more persistent. Also they would focus on the problem and have more peaceful and successful feelings and benefit from more effective strategies. Zimmerman and Cleary (2004) in their case studies found out that one of the important reasons for unsuccessful education is low self-efficacy. They found that educational problems of some students are due to not implying self-regulation strategies. Failure in doing tasks and problem-solving lowers their self-efficacy and in result of that they trust their own abilities less and will face more educational problems. Zeraat and Ghafourian (2010) through a study showed that teaching problem-solving skill to students increases their abilities and promotes their educational self-image and development; hence it should be noticed in the curriculum. The results of the study conducted by Zahrakar, Rezazadeh and Ahghar (2010) indicated that the self-efficacy of the students trained with the problem-solving skills was more than that of students without those trainings. Also the self-efficacy of the students throughout the time enjoys reasonable stability.

In late 60s and 70s the application of problem-solving skill initiated as a part of the cognitive – behaviorist movement for reforming behavior. Dzurilla and Goldford as pioneers of this method have emphasized teaching problem-solving skills in the personal skills curriculum (Nezu and Dzurilla, 2001). Generally problem-solving is called to individual's innovative cognitive-behaviorist process that by using it He/she wants to set, discover or invent effective and contrastively adaptive strategies. In other words problem-solving is an important contrastive strategy that increases ability along with social and personal development and decreases psychological typology (Dzurilla and Sheedy, 1992). Theorists' position regarding the topic of research is that problem-solving skill needs purposeful, special strategies by

which one defines the problems decides to find a solution and applies the problem-solving strategy and monitors it (Elliot, et al, 1999). Different studies have suggested that cognitive-behaviorist therapy with focus on problem-solving can be effective on individuals' self-efficacy and help-seeking. A study by Agbaria (2011) showed that teachers of special education who perceived themselves as less involved in school activities reported symptoms of learned helplessness with respect to their work at school, expressed as unwillingness to expend effort, dissatisfaction and difficulty in perseverance. Also he found clear links between motivation and its components and participation in the process of choosing an academic institution (Agbaria, 2013).

The results of Morton's study (2005) showed the effect of teaching problem-solving in lowering the causes of educational downfall. Khaledian, Omidi, Sepanta, and Tavana (2014) showed the effect of life skills training on the students' self esteem. According to Deguzman (2008) problem-solving skill in a task that is accompanied by help-seeking provides better criterion for students' learning. Thus using problem-solving skills must be taken into account with consideration of the consequences of adaptive help-seeking and its avoidance. He also believes that using results of help-seeking without any relation to a interfering skill is difficult. In addition to that students with high self-efficacy have higher chances preventing the avoidance of help-seeking behavior in condition that these opportunities are met in the classroom. The study results of Khoshkam, Malekpour and Moulavi (2008) regarding the effects of problem-solving group teaching on students' social skills showed that students' presence in group meetings has increased their social skills and decreased their behaviorist problems. The study conducted by Zarr'e, Pirkhaefi and Mobini (2010) showed

that teaching problem-solving skill as a technique can dynamize the metacognitive and characteristic elements of creativity.

Regarding the fact that problem-solving is considered an important topic in educational and cognitive psychology and also as an important strategy in learning and with respect to its importance and the effect of self-efficacy and help-seeking on education and learning of the students, this study attempted to find out whether problem-solving skill affects students' self–efficacy and educational help-seeking? In order to find an answer to this problem, the following two hypotheses were proposed:

1) Getting trained in problem-solving decreases avoidance of help-seeking among students.

2) Training in problem-solving increases self-efficacy among students.

Method

The present study regarding the practical purpose and administration is experimental and in the pre-test post-test model with the control group.

Population, sample and sampling method

The sampling population of this study includes all the female high school students of the city Ghaemshahr who have been enrolled there in the educational year of 1391-92. The number of female high schools of this city was 33 schools and the population of female students was 4146 students. Regarding that the research method of this research is experimental and for each subgroup at least 15 students should be taken into account, for the external validity of the research 50 students were selected (25 students for the experimental group and 25 other for the control group). The research method of this study was done

6

by multi steps clustering meaning that first geographically the Ghaemshahr city is divided into two schooling areas and then from those two areas one area randomly was chosen and from 19 female high schools of this area randomly one school was selected and from three grades of this high school, first grade was randomly selected. In next stage 170 questionnaires were distributed among the students and 68 students got grades with one standard deviation lower the average in both questionnaires of the educational help-seeking and general self-efficacy and among them 50 students were selected randomly and paced in experimental and control groups.

Instruments

*Help-seeking behavior questionnaire.*This questionnaire is a self -reporting instrument that has been set by Ghadampour and Sarmad (1382) according to the points made by Newman (1998), Newman and Goldin (1990) and Ryan and Pintrich (1997) and has 14 items that measures help-seeking behavior by two components of adaptive and avoiding help-seeking. For studying the questionnaire analytic-operative method has been used in main components style and after analysis based on the perceived outcomes questions 3-6-7-11 due to low load of operation has been omitted. Altogether this scale ha 10 questions. In Ghadampour and Sarmad' research (2005) by using the Cronbach's alpha method for adaptive or avoiding help-seeking, the validity of this questionnaire is respectively .68 and .68. Also in the study done by Rezaei and Pashaei (2010) the stability of this scale by using Cronbach's alpha method for adaptive help-seeking was .74 and for avoiding help-seeking it was .72. In this study the final coefficient of this study by using the Cronbach's alpha method for adaptive or avoiding help-seeking, the validity of this questionnaire is respectively 0/75

7

and .72.

*The General Self-Efficacy Scale (GSES).*This questionnaire has been made by Sherer, et al (1982) and measures individual's beliefs about his abilities to conquer different situations (AziziAbarghouei, (2008). This questionnaire has 17 items that the respondent answers according to the Likert's five degree scale (from firmly against to absolutely fore). High grades show individual's feeling of high self-efficacy. Barati (according to Keramati and Shahraraye, 2004) reported the admissibility of the structure of this test in a 100 members group .61 which was meaningful in the level of .05. The final correlation of the test has been achieved .76 by Spearman Brown formulawith even length, .76 without even length and .76 by Gutman's two halves method or general similarity of the questions was .79 which is pleasing. Keramati and Shahraraye (2004) by Cronbach's alpha method have reported the final correlation of that 0/85. In present research, the questionnaire demonstrated a Cronbach's alpha reliability coefficient of 0.75 and 0.72 for help seeking and avoidance of help seeking.

*Problem-solving skill educational sessions.*In this study of the interfering program of teaching problem-solving skill in groups and after implication of pre-test on the experimental and control group, the experimental group took part in 8 two-hours sessions of teaching problem-solving skill programs within a month (two sessions each week). The interfering program by using various references especially Goldfried and Division' behavior therapy book (1976) was made and implied as following:

*First session (orientation stage).*Introduction and familiarity with group members, mentioning the group's rules, discussing the importance of problem-solving skill. Second session (reinforcing the orientation): encouraging tidy individuals,

reporting the previous session's tasks and giving feedback and making smaller groups. Third session (exact definition of the problem): brief review of the previous session's tasks, discussing about the necessity of the more exact definition of the problem and prioritizing of problems. Forth session (making a list of different solutions), fifth session (assessing different solutions and selecting the best one), sixth session (making decision and implying different solutions), seven's sessions (emphasis on instrumen-purpose thinking), eights session (reviewing previous stages).

Administration Method. After coordination and getting the permissions from the education bureau and by the help of the dean and staff of the school, 170 questionnaires were distributed among first year students of the high school and among them students with one standard deviation below the average in two variables were selected and randomly were divided into control and experimental groups. Then by coordination with the dean of the school within 8 two-hour sessions for two times a week problem-solving skill was taught in groups to the experimental group. After the teaching period was finished a post-test was given to both experimental and control group. Eventually for analyzing collected data, descriptive and comprehensive methods were used in a way that for describing collected data, mean tables and standard deviation and for comprehensive dimension, Multivariate analysis of covariance (MANCOVA) was used. For analyzing the mentioned items, statistical software (SPSS19) was used. According to rules of statistical analyses, multiple covariates can be used for statistical differences on multiple continuous dependent variables by an independent grouping variable, while controlling for a third variable called the covariate depending on the sample size. Also covariates are added so that it can reduce error terms and the

9

analysis eliminates the covariates' effect on the relationship between the independent grouping variable and the continuous dependent variables.

Results

The participants of the study were in the first grade of high school with the average age of fifteen. For assessing the hypothesis of research, mean and standard deviation of the grades, small scales of the students' academic help-seeking and self-efficacy in stages of pre-test and post-test were compared.

Table 1

Mean and Standard Deviation of the Grades of Adaptive and Avoidance of Help-seeking and Self-efficacy of the Female Students of the both Experiment and Control Group I Pre-test and Post-test

Variation		Experiment		Control	
		M	SD	M	SD
Adaptive help-seeking	Pre-test	16.92	2.30	16.20	1.75
	Post test	21.28	2.20	15.92	2.01
					1.84
Avoidance of help-seeking	Pre-test	10.36	1.63	10.00	
	Post-test	6.40	1.52	10.12	1.83
					3.68
Self-efficacy	Pre-test	34.92	4.77	35.08	
	Post-test	50.08	4.42	34.566	4.65

Table 1 includes mean and standard deviation of pre-test and post-test in both groups of experiment and control. Results show that in pre-test there isn't a great difference between mean grades of adaptive and avoidance of help-seeking and self-efficacy in experiment and control groups but in the post-test the

mean grades of the adaptive help-seeking and self-efficacy in experiment group has increased and also the mean of avoidance of help-seeking in experiment group compared to control group has decreased.

Before using covariance analysis parametric test for observing its assumptions, Box and Levene's tests were used. According to BOX test which was meaningful for none of the variables, homogeneousity of variance/covariance matrixes was observed properly (Box's =8.58, F=1.33, P=0.238).

According Levene's Test for Equality of Variances and its meaningfulness for no variables, the equality of inter groups variances has been observed.

Table 2
Validity Criteria of Multi Variables Covariance Test

Effect	Value	F	Hypothesis df	Error df	Sig
Pillai's Trace	.924	175.38	3	43	.001
Wilks' Lambda	.076	175.38	3	43	.001
Hotelling's Trace	12.33	175.38	3	43	.001
Roy's Largest Root	12.33	175.38	3	43	.001

Table 2 illustrates the F tests for the multivariate effect of groups. These tests are based on the linearly independent pair wise comparisons among the estimated marginal means. Results showed that there is a meaningful difference at least between one of the variables among the studied groups.

11

Table 3

Result of MANCOVA Analysis of Grades from Adaptive Help-seeking, Avoidance of Help-seeking and Self-efficacy Tests in Experiment and Control Groups

Variables	Change Sources	SS	df	MS	F	Sig
Adaptive Help-seeking	Pre-test	73.07	1	73.07	35.25	.001
	group	292.10	1	292.106	140.91	.001
	error	93.28	45	2.07	-	-
Avoidance of Help-seeking	Pre-test	18.85	1	18.85	7.78	.008
	group	163.47	1	163.47	67.50	.001
	error	108.98	45	2.42	-	-
Self-efficacy	Pre-test	304.46	1	304.46	35.68	.001
	group	2981.92	1	2981.92	349.48	.001
	error	383.96	45	8.53	-	-

As seen in table3 the amount of calculated F for grades of adaptive help-seeking, avoidance of help-seeking and self-efficacy in experiment and control groups, after stabilizing the effect of pre-test, is meaningful. In result there is a meaningful difference between the mean of post-test grades of the adaptive help-seeking, avoidance of help-seeking and self-efficacy in experiment and control group after stabilizing the effect of pre-test. The comparison between means of two groups shows that the mean grade of adaptive help-seeking in experiment group with (M=21.28) is higher than that of control group with (M=15.92) and the mean grade of self-efficacy in experiment group with (M=50.08) is higher than that of control group with (M=34.56). But the mean grade of avoidance of help-seeking in

experiment group with (M=6.40) is lower than that of control group with (M=10.12). So we can say that in contrast to the control group students, the problem-solving skill teaching program has its effects in adaptive help-seeking, avoidance of help-seeking and self-efficacy on the experiment group students that have been exposed to the program in a way that it has increased the adaptive of help-seeking and decreased the avoidance of help-seeking in experiment group students.

Discussion

The purpose of this study was to assess the effectiveness of problem-solving skill training on students' self-efficacy and academic help-seeking. The results from first hypothesis showed that problem-solving skill training increases adaptive help-seeking and turned out that the tests of the experiment group who were taught the problem-solving skills showed a remarkable increase in their help-seeking and self-efficiency in the post-test. This increase in comparison to the control group that had never been taught was meaningful. In fact the experiment group students by benefiting from problem-solving skills teaching and its stages learnt that in facing a problem they should not think straightly about the solution but rather they should know what is the problem first and after defining and reintroducing the problem they should consider different solutions possible for that problem and finally among those solutions they should choose the best solution. In this way it is observed that the experiment group in contrast to the control group has great difference in adaptive academic help-seeking. Findings of this research that is problem-solving training has increased help-seeking is in line with the findings of the studies done by Karabenick and Newman, (2006), Wolters, (2003), Bartolome et al, (2006), DeGuzman (2008), Gordon (2012),

Ahmadpour (1998), Pakdaman, et al, (2007), Khoshkam,et al, (2008) and Zare'e and Mobini (2010) .In defining of these findings one can say that students who use the help-seeking strategy, by using metacognitive strategies can recognize their academic problems and become aware of their need to others' help much better. In result these students by relying on effective metacognitive strategies for solving academic and learning problems use help-seeking strategy and get better academic achievement (Ghaddampour and Sarmad, 2005). Since help-seeking is one of the self-regulative strategies, these strategies help students to manage the facilities in class and the environment. This kind of help-seeking acts as a strategy for preventing academic failure. By help-seeking not only students' academic problems would decrease but also they would grasp skills and knowledge that would act as a method of problem-solving and professional learning in other situations (Nelson-le-Gall,1987). Regarding the fact that the problem-solving skill is on the highest level of human's cognitive and metacognitive activities, creating the problem-solving ability in students makes these people well-prepared in facing life conditions and new situations they would be exposed to. In this way, problem-solving skill teaching to students lets them have better countering in facing the problems and not to lose their hope. It also helps them to make themselves able to encounter any problem and to seek help from others. In conclusion, according to these results, one can say that acquiring problem-solving skill reinforces the help-seeking behavior in students.

The results from second hypothesis showed that problem-solving skill teaching in experiment group in comparison to the control group has decreased students' avoidance of help-seeking. This decrease in comparison to the control group which had seen no training was meaningful. The finding of this study

14

which is problem-solving skill teaching has decreased the avoidance of help-seeking was similar to the results of the following studies: Ames and Archer(1988), Butler and Newman (1995), Ryan and Pintrich (1997), Elliot, et al, (1999), Kavanagh, (1999), Morton, (2005), Ryan and Hyuang Shin, (2011, Izadyfard and Sepasi Ashtiani, (2009).

Ryan and Pintrich (1997) show that avoidance of help-seeking comes in two patterns: 1) help-seeking is not exclusively academic but also relies on social interactions and 2) the learner's social competency has its effect on help-seeking. Students avoid help-seeking because there is no practical rule against help-seeking. A student might feel that no one can help him/her. As time passes, the student might feel hopeless to receive any help.

In addition students might have their own concerns about too much of tendency toward independence and fear from threats to their own competency. In fact social and cognitive competency of the students plays an important role in help-seeking. Students, who are less successful, won't ask for help because if they do, their help-seeking is the confirmation to this assumption that they are disabling. On the other hand, successful students worry a lot less about what others think about him/her and it is more probable for them to seek help. In addition students, who feel more socially competent, seek help with higher probability. So the probability of help-seeking relies on social interactions (Ryan and Pintrich, (1997).

In this study for problem-solving skill training, we have used methods of group discussions, question and answer and practicing in small groups using Goldfried and Division (1976) general and organized pattern. This method by using students' educational, occupational and personal life experiences which are the taught basics of the problem-solving skill has put them in

real life problematic situations. Therefor by teaching this skill that utilizing social problem's solution is one of its important features, one can expect that avoidance of help-seeking as a behavior with social consequences would decrease. This is because the first stage of this protocol is the general orientation toward the problem which focuses on controlling human's excitements and reactions in facing the problems and factors that cause these feelings. Then students in the following stages of this pattern, by having problem-adaptive belief as a life reality and by an optimistic look toward the future and using logical thinking instead of spontaneous and elusive decisions, learn to make a firm decision and also learn to recognize his/her weak and strength points and in facing problems, he/ she learns how to use other solutions. Therefor problem-solving skill teaching through group work has its role in students' cognitive, affective and professional maturity. So according to the importance of decision-making power and ability to solve the problems and by reinforcing problem-solving skill, one can expect to see increase in help-seeking acceptance behavior and decrease in avoidance of help-seeking behavior.

Also the outcomes of the third hypothesis of this study showed that by reinforcing problem-solving skill has increased students' self-efficacy which is similar to the outcomes of the following studies: Schunk (2001), Warnecke, et al (2001), Bornstein, (2003), Wollfolk (2004), Litt, et al (2009), Jafari (2006), Zeraat and Ghafourian (2010), Zahrakar, et al (2010). Problem-solving teaching method is being considered as the most important problem-oriented collation method and enjoys a good support having the aim of recognizing the effective sources for collation and increasing individual's general self-efficacy in facing the problems. Possible reasons for the increase in self-efficacy may be that competent individuals in problem-solving

16

have the ability to recognize inefficient thoughts and neutralize them and also they can control thei negative feelings and thoughts. These individuals do not see the existence of the problem as a sign of their weakness, incompetency, untalentedness and disability and can predict the solutions along with the results of their decisions. When individuals use problem-solving skill properly, their feelings of competency, domination and self-efficacy would be reinforced (Zahrakar, et al 2010). In addition, one can say that problem-solving cognitive skills can be taught in small groups which in most educational and real life cases improve the performance and also improves individuals' attitude towards their abilities, especially their academic ability and eventually increases academic improvement (Rozenhan and Silgman, 1989; cited in Zeraat and Ghafourian, 2010).

In a general conclusion, we can say that problem-solving is an important issue in educational and cognitive psychology and also it is known as an important strategy in learning matter. According to O'Neil (1999), both students and educational staff should develop problem-solving skills for becoming competent in their work context. Mayer (2002) showed that effective teaching and evaluation of problem-solving strategies is very important in developing competency in school or workplace. So regarding the importance of self-efficacy and help-seeking in students' academic achievement and also its effectiveness in other occupational and personal aspects of individuals' life, problem-solving skill can pave the way for students to be more successful in their educational, occupational and personal lives. The results of this study can present suitable solution for the education and training organization and families who are the core of students' and teenagers' training and pave the way for further researches about students. Also the outcomes of this

17

research and results from implication of this method would make the job of school authorities and consulting centers easier to spread this educational method.

This study like any other scientific work was exposed with some limitations. In this study all the data was collected from one city and also limiting all the samples to females can put our generalization of findings to boys into doubts. So it is suggested that a similar study be conducted on male students and also on students of other grades and especially on schools for students with special needs. It is also suggested to introduce this educational method to teachers and education specialists so that by having this skill, they would help students to become more successful.

References

Ahmadpour, Z. (1998). *Effects of problem-based learning ofhigh school studentsinschoolpsychology*. MA thesis, University of Allameh Tabatabai.

Agbaria, Q. A. (2011). The Relationship between the Level of School-Involvement and Learned Helplessness among Special-Education Teachers in the Arab Sector. *Australian Journal of Teacher Education*, *36*, 2, 1-15.

Agbaria, Q. A. (2013). Self-Efficacy and Participation in Choosing the Teaching Profession as Predictors of Academic Motivation among Arab Student's Girls. *Australian Journal of Teacher Education*, *38(3)*. http://dx.doi.org/10.14221/ajte.2013v38n3.7

Altun, I. (2003). The perceived problem solving ability and values of student nurses and midwives. *Journal of Nurse Education Today*, *23*, 575-584.

Ames, C., & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation

processes. *Journal of Educational Psychology*, *80*, 260-267.

Azizi Abarghoei, H. (2008). *The relationship between self-efficacy and quality of graduate students'learning experience bu*urnout. Master's thesis, Allameh Tabatabai University, Tehran

Bandura A., Pastorelli C., Barbaranelli C. & Caprara G.V. (1999). Self- efficacy path ways to childhood depression. *Journal of Personality and Social Psychology, 76*, 258-269.

Bandura, A. (1997*). Self-Efficacy: The Exercise of Control*. New York: Freeman.

Bandura, A. (2001). *Guide for Constructing Self-Efficacy Scales. Stanford*, CA, USA: Stanford University.

Bartholomé, T., Stahl, E., Pieschl, S., & Bromme, R. (2006). What matters in help seeking?A study of help effectiveness and learner-related factors. *Computers in Human Behavior*, *22(1),* 113-129.

Bornstein, M. H. (2003). *Well-being positive development across thelife course*. Maha-wah: Lawrence Erjbaum.

Butler, R., & Newman, O. (1995). Effects of task and ego achievement goal on help seeking behaviors and attitudes. *Journal of Educational Psychology*, *87(2),* 261-271.

DeGuzman, P. (2008). *Effects of helo-seeking in a blended high school biology class*. A Dissertation Presented to the factualy of the rossier school of education university of southern california in partial fulfillment of the requirements for the degree Doctor of Education.

Dzurilla, T. J., & Sheedy, C. F. (1992). The relation between social problem solving ability and subsequent level of academic competence in college students. *Cognitive Therapy and Research*, *16(5),* 589-599.

Elliot, T. R., Shewchuk, R. M., & Richards, J. S. (1999). Care given social problem solving abilities and family member

adjustment to recent onset physical disability. *Rehabilitation Psychology*, *44(1),* 104-123.

Ghadampour, E. & Sarmad, Z. (2005).The role of motivational beliefs in help seeking behavior and academic achievement learners. *Journal of Psychology*, *7(2*), 112-126.

Goldfried, N. R., & Division, G. C. (1976). *Clinical Behavior Therapy*. New York: Holt, Reinhart, and Winston.

Gordon, D. (2012). *The relationship between self-efficacy, help-seeking behaviors and student achievement among middle level mathematics students in an interactive learning environment*, TUI University, Dissertations and Theses Gradwork, 130 pages; 3501586.*http:// gradworks.umi.com /35/01/3501586.html, http://www.uky.edu/~eushe2 /Pajares/ ZimmermanClearyAdoEd5.pdf*

Izadyfard, R. & Sepasi Ashtiani, M. (2009).Effectiveness of cognitive -behavioral therapy and problem-solving skills training to reduce symptoms of anxiety. *Journal of Behavioral Sciences*, *4(1),* 23-27.

Jafari, M., Shahidi, S., & Abedin, A. R. (2006). Comparison of efficacy Trans-theoretical Model of Cognitive-Behavioral improving abstinence self-efficacy in drug dependent adolescents. *Journal of Behavioral Sciences*, *7(1),* 1-12.

Karabenick, S. A., (2002). Seeking help in large college classes: A person–centered approach*, Journal Contemporary Educational Psychology*, *28*, 37-58.

Karabenick, S., & Newman, R. (Eds.). (2006). *Help seeking in academic settings:* Goals, groups, and contexts. Mahwah, NJ: Lawrence Erlbaum Associates.

Kavanagh, D. (1999). *Self-efficacy and Depression. In R. Schwarzer (Ed.), Self–efficacy: Thought control of action*. Washington DC: Hemisphere.

Keramati, H. & Shahraraye, M. (2004). The role of perceived

self-efficacy in mathematics performance. *Quarterly Journal of Educational Innovations*, *4(1),* 103-115.

Khaledian, M., Omidi, M., Sepanta, M., & Tavana, M. (2014).The efficacy of training life skills on the students' self esteem. *International Letters of Social and Humanistic Sciences,* 9, 108-114.

Khoshkam, Z., Malekpour, M., & Moulavi, H. (2008). Group problem solving, social skill straining effectiveness of students withvisual impairment. *Exceptional Children Research*, *8(2),* 141-156.

Litt, M. D., Kaddenj, R. M., Kabela-Cormier, E., & Petry, N. M. (2009). Coping Skills training and contingency managementtreatments for marijuana dependence: Exploring mechanisms ofbehavior change. *Addiction, 103(4),* 638-48.

Mayer, R. E. (2002). A taxonomy for computer-based assessment of problem solving. *Computers in Human Behavior*, *18(6)*, 623- 632.

Morton, J. A. (2005). A study to determine the influence of teaching problem solving tools to educationally at – risk high school students. Dissertation Abstracts International Section. A: *Humanities and Social Sciences*, *66 (4-A),* PP. 1266.

Nelson-Le Gall, S. (1987). Necessary and unnecessary help seeking in children. *Journal of Genetic Psychology*, *148*, 53-62.

Newman, R. S. (1998). Student's help-seeking during problem-solving: Influences ofpersonal and contextual achievement goals. *Journal of Educational Psychology*, *90*,644-658.

Newman, R. S., & Goldin, L. (1990). Children's reluctance to seek help with school work. *Journal of Educational Psychology*, *82(1)*, 92-100.

Nezu, A., & Dzurilla, N. (2001). Problem-solving training. In S.Kdobsor (Ed.), *Handbook of Cognitive Behavioral Therapies*.New York: Guilford press.

O'Neil, H. F., Jr. (1999). Perspectives on computer-based performance assessment of problem solving. *Computers in Human Behavior, 15*, 225-268.

Pakdaman, M., Farzad, V., Sarmad, Z., & Khanzadeh, A., (2007). Student shelp seeking knowledge of the mathematical problem: the impact of preference goal and objective conditions. *Journal of Research Psychology, University of Tabriz, 2(8),* 39-69.

Rezaei, A. & Pashaei, L. (2010).The relationship between cognitive beliefs and attitudes towards help-seeking behaviors of students with academic achievement. *Journal ofEducational Sciences, 3(9),* 109-126.

Ryan, A. M., & Huiyoung Shin (2011).Help-seeking tendencies during early adolescence: An examination of motivational correlates and consequences for achievement*. Learning and Instruction, 21*, 247-256.

Ryan, A. M., & Pintrich, P. R. (1997). Should I ask for help? The role of motivation and attitudes in adolescents' help seeking in math class. *Journal of Educational Psychology, 89,* 329–341.

Ryan, A. M., & Pintrich, P. R. (1997). Should I ask for help? The role of motivation and attitudes in adolescents' help seeking in math class. *Journal of Educational Psychology, 89,* 329–341.

Schunk, D. H. (2001*). Social cognitive theory and self-regulated learning*. Mahwah, NJ: Erlbauam.

Schunk, D. H. (2001). *Social cognitive theory and self-regulated learning*. Mahwah, NJ: Erlbauam.

Selcuk, G. S., Caliskan, S., & Erol, M. (2007). The effect of

gender and grade levels on Turkishphysics teacher candidates' problem solving Strategies. *Journal of Turkish since education*, *4,* 10.

Sherer, M., Maddux, J. E., Mercadante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports*, *51(2),* 663–671.

Warnecke, R. B., Morero, O., Turner, L., Mermelstein, R., Johnson, T. P., & Parsons, J. (2001). Changes in self-efficacy and readinessfor smoking cessation among women with high school or lesseducation. *Journal of Health and Social Behavior, 42(1)*, 97-100.

Wollfolk, A. (2004). *What do teachers need to know about self-efficacy*. Paper presented at the annual meeting of the American Educational Research Association, San Diego, CA.

Wolters, C. (2003). Understanding procrastination from a self-regulated learning perspective, *Journal Educational Psychology*, *95(1),* 179-187.

Zahrakar, K., Rezazadeh. A., & Ahghar, Gh. (2010).Effectiveness of problem solving training on self-efficacy of high school girls in the city of Rasht. *Journal of Modern Thoughts in Education, 5(3),* 133-150.

Zahrakar, K. (2009). *Counseling Stress: Antecedents, Consequences Stress Treatment Strategies*. Tehran: Bal Press.

Zarr'e, H., Pirkhaefi, A., & Mobini, D. (2010).The efficacy of problem-solving skills training to enhance creativity in engineers according to their personality type. *Journalof Modern Industrial/organizational Psychology*, *1(3),* 49-56.

Zeraat, A., & Ghafourian, A. (2010). The Effectiveness of problem solving training on academic self-concept of

learners. *Journal of Educational Strategies, 2(1),* 23-26.

Zimmerman, B. J., & Cleary, T. J. (2006). *Self-Efficacy Beliefs of Adolescents*, 45–69. Information Age Publishing.