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Investigating the Relationship between Self Efficacy, the Locus of Control and Male and Female Students' Academic Achievements in Chenaran High School

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Abstract
The purpose of present study is to investigate the relationship between self efficacy, locus of control and academic achievement in high school students (boys and girls). The sample of the research consisted of 266 high school students in the chenaran city, which were selected by using random sampling. The pentrich self efficacy questionnaire and the nowicki-strickland locus ofcontrol scale were presented to them, and so first grade average high school used for achievement academic assessment.
Data were analyzed bye Pearson correlation coefficients and stepwise regression. Result showed that there is a positive meaninigful relationship between self efficacy and academic achievement. In the other wise, there is a negative meaningful relationship between locus of control and academic achievment. Also, the result of regression showed that the self efficacy had most role in academic achievement.
Key words: academic achievement, self efficacy, locus of controlInvestigating The Relationship Between Self Efficacy, The Locus of Control And Male And Female Students' Academic Achievements In Chenaran High School.

I.   Introduction

Nowadays students' academic achievements are considered as a significant indicator for evaluating educational systems. Moreover, academic achievements are steadily considerable for teachers, students, theorists and cultural scholars. According to Dayyaz (2000) educational scholars must emphasize and consider students' success for determining the academic and cultural future.

The prediction of academic achievements is important in scientific and applicability aspect. Academic achievement is one of the acceptability factors in the class, also it is important to gain an occupation and promotion in it. Academic achievements is also important from another aspect, that is, due to the fact that each cultural system is continuously evaluated by experts in order to gain best conditions and results and to resolve shortages and obstacles through entire cultural and educational processes and gaining the optimum usage of inside data, and finally the outcome of cultural and educational systems are the students with some special ability's, academic achievements could be one of the most important and explicit indicators for investigating and evaluating cultural systems efficiency [1-3]. In the first attitude, familial environment's processes influence is considered in academic achievements and in the second attitude that is used in this study, students' specific processes such as self-discipline and sell efficacy is discussed. Considering the motivation aspect including self efficacy, internal value, and emotional response is one important issue in educational scheduling and academic achievement and the most important aspect of that is a relatively brand concept called self efficacy. Self efficacy points out belief and self judgment of one's own ability's in doing a certain assignment [2-5]. One important reason amongst sophisticated factors and reasons, is failure and fiasco in how to gain the mentioned students' attitude towards himself and his abilities; and those understandings and point of view of individuals about one's ability were the basis of Bandora's theory about self efficacy. Bandora (1997) believes that the children who believe that they are able to afford some assignment actually do it and the children who are satisfied about themselves and their abilities are likely to promote. Conversely, those students who think varied about themselves and their abilities, fail. Persons who have a high self efficacy concept, show a greater perseverance in doing their assignments, are not afraid of situations and choose high level aims for themselves.

Many researchers and scholars such as Bandora, 1996, Kapra, Babaranl, Pastorli, 1998, Chemrez, Hu and Garsa, 2001; Matsui, T. (1992). Green, Miler, Crowson Duke and Akey, 2004, Wolters, C. (2004); Zimerman and Bandora, 1997 referred to Karol and cowerkers, 2009. Karademas, E, C. (2006) [4-9] showed in their studies that self efficacy has a positive effect on academic improvement. Zimerman, Bandora and Martinz-Ponz, 1992, commenced investigating the relationship between academic self efficacy and academic

improvement using path analysis. They reported that academic self efficacy identifies 21% of academic improvement variance directly and 36% of educational improvement variance indirectly using rising students' desires level and their efforts.

Bandora (1997) showed during their studies that self efficacy influences academic improvement meaningfully. Students with high self efficacies involve more in assignments, try more and have a higher perseverance in difficult assignments (reffered to Gaskill and Murphy, 2004). High self efficacy also causes the person to consider the difficult assignments as challenging rather than frightening [11-14].

The studies also shows that self efficacy feeling has a positive relationship with responsibility acceptance in doing homework and high mark average in final examinations, teachers' occupation satisfactory and students' academic achievement [12-15].

Karim Zadeh and Mohseni (1385) [11] in a study about the relationship between self efficacy and academic achievement concluded that the higher academic self efficacy led the higher academic achievement. Also in a study done by Seif and Marzooghi (1387) in a sample of third year guidance school students using path analysis concluded that self efficacy, is the strongest predictor factor for academic performance. In a study done by Kodivar (1382) on high school first year male and female students, concluded that there is a meaningful relationship between self efficacy and academic achievement. Mohsen Poor, Hejazi and Kiamanesh (1386) also in a study aimed to determine the self efficacy, learning methods relationships and perseverance in students' mathematics academic achievement concluded that these variants correlate the mathematics academic achievement directly and showed that self efficacy variant has the most direct influence on mathematics improvement compared to other variants.

Another personality variant that has a close correlation with the academic achievement, is the locus of control which is noticed by several cultural and educational experts in the recent decade, particularly social and cultural psychologists [15-16]. The structure of locus of control roots in social learning theory. In this theory, boost is known as the determiner of the behavior and one's concept about the source of the boost is a main element in determining the behavior (Rater, 1966). The locus of control in relationship with the culture and education and its' dependent variants, could be studied and investigated as a main indicator in predicting students' achievements, failures and academic drop. Persons who are identified by personality of internal locus of control, believe that some other factors such as luck or difficulty of the assignment causes achievement or failure (Slaven, 2003). Some studies confirm negative correlation between locus of control and academic achievement Ahent, for example Maun and Neda (1986); Newman, Findly, Richel (1988), found a negative and meaningful correlation between the locus of control

and academic achievement, while Kramp, Hikson and Laman (1986); Martal, Malcoy and Estending (1987) referred to Farahani found no correlation between measured locus of control with internal and external Rutel scale and academic achievement. Findly and Coper (1983) started investigating the results found in locus control and academic achievement in a study and concluded that there is a meaningful and positive correlation between locus of control and academic achievement and the correlation's amount for middle limit of directing of internal and external locus of control. They concluded that internal persons consider success (good grade) as a result of ability and attempt and persons with external control supply, consider gaining grade as matter of chance and fortune. Internal persons try more than external persons to achieve grade (achievement), internals also adopt themselves with the conditions more than externals. Studies done in Iran also suggest such a correlation between internal control supply and academic achievement showed that, students with internal control supply have better academic achievement. In a study done by Karbalayi (1384) on intelligent and normal male guidance schools' students, it was identified that there is two meaningful difference groups between internal control center and academic achievement, and between external control center and academic achievement, and between internal and external control center, and normal males have an external control center comparing to intelligent ones and the more student's internal control center the higher his academic achievement. Moreover, in the study that Mehr Afroz and Shahr Aray (1381) done on fourth year elementary, they found out that negative and meaningful correlation was observed between student's locus of control with science grade and his average, and no correlation was observed between student's locus of control and his mathematics grade. Sheibani and Akhvan Tafti (1388) also observed, in a study done on high school students (with academic drop), that teaching locus of control is effective on students' self-confidence, but not effective on improvement in academic achievement.

Research method

By considering the essence of subject and the research objectives, the research method is descriptive correlative.

Population, sample and sampling method:

The statistical population of this research consists of all the first grade student of chenaran high school in 1389-1390. the total number of this population was 1307 that 266 persons were chosen randomly and multi stage sampling on the basis of cerjici and morgan table(1970). In the first stage 9 schools were chosen randomly among 28 girls and boy schools and in the second stage also the sample persons were chosen in proportion to the number of the first grade students. The statistical analyzis was

performed on 260 samples and 6 persons were excluded due to the incomplete filling of some questionnaires.

Research instrument:
Self efficiency questionnaire:
In present research to measure the self-efficiency we have used the self-efficiency questionnaire which in made by pintrich and daygroot (1990). Pintrich and daygroot by using the coefficient of cronbach's alpha obtained the reliability of about 89% .

Similarly in alborzi and samani(1378) studies about the whole questionnaire validity they used the re-examination method and the outcome coefficient was 78%. in present research chronbach's alpha method was used to calculate the validity of questionnaire and the validity coefficient was 79%. The outcome reliability of the scale correlation coefficient with intrinsic value and self-regulation learning were 48% and 46% respectively (pintrich and daygroot ,1990). The determine the reliability the correlation with intrinsic value was 52% and with the factor of using learning strategies was 36% and with self-regulation was 45% which all were meaningful at the level of 1% (alborz and samani, 1387). In present research we have used the analyzis method of confirmatory factor to evaluate the questionnaire reliability and the correction coefficient was 56%.

Locus of control scale:
We used the nowiki-strickland locus of control scale (1973) , interrogative (application 25) to assess this variable. The nowiki-strikland scale is a paper and pencil scale which consists of 40 phrases. This scale has to option(yes) and (no) with (1-0) scores. Some of these phrase have positive trend(external control)and some of them have negative trend (intrinsic control) .

The provider of this scale have used different methods to determine its validity and reliability. The reliability of re-examination on different age groups in six weeks interregnum was reported between 63% to 71%. They also by using the spearma-brown formula on different age groups have reported the reliability of split-half between 63% to 81% (nowick and strick land (1973), cited from mahmoodi, 1385). In present

research thr cronbach's alpha method was used to assess the reliability of the locus of control questionnaire and the reliability coefficient was 75% that indicates the proper reliability of this questionnaire. Different methods including component validity also were used in scale validity. For example the relation of this scale to demographic variables, educational and personality achievement shave been studied. For example, there was a meaningful relation between locus of control scale and social class, it means that the higher social class, the higher intrinsic control. It was also defined that the locus of intrinsic control is more related to higher educational achievement. Further more, there was a meaningful correlation between the locus of intrinsic control and self-esteem (nowicki- Strickland , 1973 ; cited from mahmoodi,1385).

Educational achievement:
In this research we have used the mean of the terminal term of the concordant lesson in the school year of 1389-1390 to determine the student's educational achievement.

II.   The statistical methods of data analyzing

SPSS software, version 16, was used for data analyzing; and to determine the validity and reliability of the tools we used statistical methods, chronbach's alpha and analyzing the confirmatory factor; and descriptive statistics (maen, standard deviation and maximum and minimum scores) and pearson's correlation test and multivariable regression were used to study the hypotheses.

Research finding:
(A)Descriptive findings:
The findings about mean, standard deviation, maximum and minimum scores of subjects for locus of control, self-efficiency and educational achievement of girl and boy student of third guidance schools grade are shown in table 4-1

Table 4-1 : mean, standard deviation , maximum and minimum scores of subjects in research variables.

Variable	sample	mean	Standard deviation	Min score	Max score
Self-efficiency	260	36/58	5/39	20	45
Locus of control	260	13/04	3/16	5	27
Educational achievement	260	16/47	2/15	11	20

As you can see in table 4-1, mean, standard deviation, minimum and maximum score of subjects in self-efficiency variable are respectively 36/58

,5/39,20 and 45; and in the variable of the locus of control mean is 13/04 and the standard deviation is 3/76, minimum score and maximum score are

respectively 5 and 27. the data about the educational achievement are as follows: mean 16/47, standard deviation 2/15, minimum score 11 and maximum score 20.

The finding about research hypothesis:

The first hypothesis: there is relationship between self-efficiency and education achievement .
Table 4-2: t5he simple correlation coefficient between self-efficiency and educational achievement in the research sample

Variables	correlation coefficient	sig	Sample
Self-efficiency* education achievement	0/500	0/000	260

As you can see in table 4-2, the correlation coefficient between the score of self-efficiency and educational achievement is 0/500 which is meaningful in $p< 0/05$, then the first hypothesis of the research is approved. There for we can say that there is a positive and meaningful relation between self-efficiency and educational achievement.

The second hypothesis; there are relationship between locus of control and educational achievement.
Table4-3: the simple correlation coefficient between locus of control and educational achievement in research sample

variables	Correlation coefficient	sig	Sample
Locus of control*educational achievement	- 0/267	0/000	260

Considering the table 4-7 and by using the stage method also we can see that the liner combination of predictor variables just explicate 30 percent of educational achievement's variance, but by considering regression coefficient(b) self-efficiency variable have more predictability. The regression coefficient (b) in $p<0/01$ is b=0/50 for self-efficiency variable and in $p<0/01$ for source control variable is b= -0/19.therefore the self-efficiency variable have more important role in predicting the educational achievement.

III.   Discussion and conclusion

The Pearson correlation coefficient shoes that there is a positive and meaningful relationship between self-efficiency and educational achievement: in other word, the higher self-efficiency, the higher educational achievement. Therefore according to this finding of research we can say that those who have high levels of self-efficiency face the hard works as competition to achieve skills not as threats to avoid them, they assign competitive objectives for themselves and establish a strong commitment to achieve their objectives, regard less of failour they continue their efforts, they attribute the fail our to insufficient effort or knowledge when encountering solemn and serious situations they are sure that they can manage them. On the contrary , those who have low level of self-efficiency have doubt about their abilities and they see the hard works as threats and avoid them, they have less keenness about their works objectives and they are depend on their personal inefficiency and conflicts(bondura,1994; shank and pajars,2002 ;cited from Williams and Williams,2010).

This finding of the research was in accordance with following researches: linch(2003) , Patrick, kapara, barbaranly, and steak(2006), rous (1998), grey and honey(2001) , bartal and bar zahr(2004), carol, hugton, ansort and heti(2009), ziem erman, bondura and martins-ponz(1992) , kapara, fida, veschione, delbav and jivan(2008), linen brinck and pintrich (2003), (bandura, barbaranly, kapara and pastorli(2001)) , molten (1991), shank(2001), bandura(1997), shank(1990), bandura(1996), kapara, barbaranly, pastorli(1998), chemerz, hiew and garsia (2001), grean, miller, croson, douk and aaki(2004), vale, nanz, kabanach, Garcia and kerzou, marsh, davson, walker and pitesh (2004), pintrich and digrot(1990), shank(1994), ziem erman, bondura, grean(2004), ziem erman(1992) , kim and park(1999), walker and chapman(2003), hall and ponten(2005), lent(2001), seif and marzuqi(1387), teymouri fard(1388), karim zadeh and mohseni(1385), farahani and keramati(1381), hekmati nezhad(1380), and mohsen pour, hejazi and kianmanesh(1386).

The pearson correlation coefficient also shows that there is a negative and meaningful relationship between the locus of control and educational achievement, in other word, when the score of the control locus increases the score of educational achievement decreases. To explain this finding of the research we should say that the control source can be to some extent the indicator of the attitude and behaviors. The people with external sources act passively and they fear that their efforts be weless either in present or in the future.

These people believe that receiving the strength is due to the out of control factors such as chance, destiny or other people. Those who have the internal locus of control don't believe in the relation between the effort and is results and hence they don't have any expectation about it. There for their perception is that the life events are out of their control.

In this condition ,strengths and behavioral outcomes are determined by powerful persons, fate, chance and fortune (Simon, J., Dewitte. S., & Lens, W. 2004). it seems that the students who have external control believe that their failour or success is due to the work difficulty, bad chance, in ability or the others odd help or spirit(vigfield,1988 cited from

rasooli) this finding of the research is accordance with following studies: zimmer man(2000), jyford(2007), bong(2001), foster and gid(2007), rickman(1997), barren and born(1991), liberty and aspygler(1990),ratter((1975), eslavin(2003), barren and born(1991), rooz and boyn(1996), bong(1998),nikolas(1998), hortakso(2008), tall(2007),klain and keller(1990), wainer(1980), karballayi(1384), rassouli(1380), abdollahi and fathi (1384) , khodapanahi and heydari(1383),.And is not in accordance with the studies which was done by heydari and koushan(1381), tabatabaei(1376), mir sadoghi(1378), sheybani and akhavan nafti (1388).

As you see, regression analyzis by using the step by stop method indicates the correlation between the linear combination of self-efficiency and locus of control variables with educational achievement. It was also defined that the self-efficiency variable have more important role in predicting the student's educational achievements. To explain this fact we should say that the beliefs of self-efficiency will effect on expectations and the efforts to gain the objectives, level of motivation, passing throng troubles, resistance against difficulties , the quality of analyzing thought , finding the reason for failours and successes and susceptibility of stress and depression. The strength of the individual belief about being effective will influence on his/her effort to adapt to given situations. Perceived self-efficiency effects on choosing behavioral situations. People fear the threatening situations and avoid them because they think they can't adapt themselves to these situations. But when they understand that they can manage the situation, they will involve in the actions and will work actively and with certainly. Perceived self-efficiency not only effects on the orientation of activities and commninities but also can effect on the initiate adaptive efforts through the expectation of possible success.

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