Comparing the scores of students in academic achievement, self-efficacy, Self-regulation and creativity

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ABSTRACT: The aim of this study was to compare the scores of boys and girls in Academic achievement, self-efficacy, Self-regulation and creativity of students is sometimes Roodehen Azad, In a sample of 300 subjects (146 females, 154 males) were administered to undergraduate students. Sample of university students Roudehen 2012 school year, the class was chosen randomly. The assessment tools include self-efficacy test 3, Self-regulation and creativity Abedi Bvfard the subjects were administered. In addition to the above tests, a questionnaire was used, in which the demographic profile of the sample group also scored a half years old, was asked as an indicator of academic achievement. Statistical methods used to test t Independent. After collecting and analyzing the data, the following results were obtained: there is a significant difference between the academic achievement of students (P <0/01). Between mean scores of self-efficacy, self-regulation and creativity, there is no difference between girls and boys. Seems to be taking into account gender differences in variables, you can change the teaching methods and the creation of new ways differences, the possible at the and when completed will provide all students the scientific community could be improved.

Keywords: academic achievement, self-efficacy, self-regulation, the creative students.

INTRODUCTION

In recent decades, the study of gender differences in education has been of great importance among various researchers. This is a rather large body of research, including research on gender differences in academic achievement, self-efficacy, self-regulation and creativity of students. Amazing advances in today's world born of human learning. Most of their abilities acquired through learning, through learning and mental abilities, his intellectual development can be actualized. So we can conclude that all human progress is achieved as a result of learning (deserts, 1993). That's why one of the most important criteria in the evaluation of students' progress, the school system and all the efforts and actions of the system, in fact it is to fulfill covered. Education students in all courses in order to change behavior, thoughts, attitudes and skills are finally improving the academic performance is measured (Sharifi, 2010). Today, a significant portion of the variance in academic achievement of learners, not only based on intelligence and mental abilities, but based on self-efficacy, self-regulation, creativity, intelligence, social, interpersonal and intrapersonal skills, motivation, progress, and so is explained (Tangestani , 2012). Atkinson et al (1998), the achievement abilities learned or acquired from courses offered in other words, the ability of learned or acquired by a person who knows the issues of school standardized tests, is measured (Saif, 2007), affect the achievement of an agent No. But several factors such as the Scholastic Aptitude (Lavlrvygn, 1997, quoted Malik, 2008), academic self-efficacy (Karim Zadeh, 2006; Tangestani, 2012), parenting practices (Samadi, 2007), motivational beliefs (Kajbaf, 2003), intelligence Emotion and creativity (Sharifi, 2010) and autoregulation (Tangestani, 2012), it is effective. The fact that these factors and variables that are intertwined and together they determine the contributions of each interaction is possible despite the difficulty of the investigation show that these factors, and one to the nature of training Cognitive and social influence on the academic achievement Arnd (Saif, 2007). recent developments in the field of higher education and broad sex education has occurred.
New research on gender differences in academic performance is confirmed. Shrd (2009), the relationship between gender and academic performance of university commitment and hard Kvshanh showed that female students have significantly better performance than boys.

Other studies in this regard are discussed with reference to the figures recorded I'll de-select the gender gap in employment related matters such as mathematics and engineering courses and their grades been adjusted (Klaytv, 2008), the girls in the development of Boys are like mathematical functions (Grmaj, 2006) and more interested in the academic study show your Dbyrs (Dumais, 2004). Therefore Shrd Research (2009), shows the hard work the girls' academic performance is better than the boys. Well as Melo and Vrl (2006) also showed that negative thoughts and attitudes about the future than the present Tqdyrgrayan both have a significant relationship with academic achievement among girls and less gender inequalities in the achievement of less education status increasing (Andreas, Damvty, 2007).

No one in similar research (quoted Hosseini, 2008), showed a mean score of academic achievement of girls is higher than boys, and this difference was statistically significant. Also, Seif (2004), in his study of the relationship between coping skills and academic achievement of girls came to the conclusion that more than boys (Tangestani, 2012).

With regard to gender differences in educational achievement can change existing methods and develop new methods, the differences likely to be at least and the situations for all students convey improvements academic can be community.

Another factor that may have a pivotal role in gender differences in academic achievement and self-efficacy to be effective. Concept of self-efficacy has a relatively short history of the activities of Bandura (1977), starts and factors affecting farmed for many years, psychologists and other experts who focus on education are in place. Bandura (1997), the theory of cognitive theorists view is that social practices are fundamental mechanisms involved are reviewed. Among the mechanisms of influence, none in the control function, Pnvztr of efficacy and beliefs of people do not know their ability and that of their processes, are important not only in making sense of external influence, but as determinants The immediate motivation to act on human behavior. Bandura also believes that self-efficacy as a factor in cognitive - motivational, rich with the authors of individual differences and gender roles in a range of academic performance (Bandura, 2001). He believes that people with strong beliefs about their ability, compared with people who are skeptical about his ability, effort, and persistence of homework are more homework is better, and ultimately function in the students with the ability to down medium, high and had the ability to have the same level of efficacy as well (Pajars, 1997; Paintball Ridge, scarves, de Groot, 1997). situation in terms of efficacy, gender differences have been reported. Some studies have shown that self-efficacy is higher in girls than boys. The Kadiwar, et al (2007), have shown efficacy girls than boys. Results Mayal study (2002), shows that more girls than boys had academic self-efficacy, and the difference was significant. A number of researchers have reported that female students in high school and college students in math, science and technology will have greater confidence (Zeinali M, Zarei and Zandi-Nia, 2009). Also Pajars (1994), argues that there are differences between boys and girls, and the efficacy is emphasized. Shhraray dignity and Research (2004), has shown significant positive relationship between self-efficacy and achievement in math, but the difference between boys and girls in mathematics self-efficacy and considerable progress has been made. Findings Bandura (1993), Gskyln And Murphy (2004), Pajars (1999) and Pnbyryj and de Groot (1990), Abdi Nia (1998) and luminous and Motamedi (2007) have shown that among the scores of boys and girls in self talk significant component no. Dvyk (1986), believes that the girls believe the theory of innate intelligence and, therefore, fail when they lack the ability to understand it. So by mixing together the findings Dvyk (1986) and previous findings that girls can succeed and progress related to the effort to understand, but at the same time believe that these efforts, the actual ability to do assignments will increase in the future He (the Holy Zadeh, 2006). Pajars (1999), argues that gender differences result from misperception and lack of ability or lack of readiness skills. This misperception is rooted in the social and cultural factors, and it is acquired. In general, based on cognitive theory - Bandura's Social (1997), and according to several studies, including research Pajars and Miller (1994 and 1997); Pajars and Graham (1999), Greene, Miller, Krasvn, Duke and Kay (2004), Kabiri (2003), Karim M. (2006), gender differences in self-efficacy seems, can play an effective role in the achievement of different levels.

One of the important topics in contemporary cognitive psychology and education, which may be different for boys and girls, the agent's self-regulation. The concept of self-regulation in learning that focuses on the role of the individual in the learning process. This structure was first proposed in 1967 by Bandura (Alderman, 2001). Bandura and Walters (1963), The self-regulation of social processes are important for the advancement of knowledge (Karshky, 2007). Pnbyryj (1990), a fairly comprehensive definition, this type of learning process, which defines a structured active learning, goals for their learning options, and then try to recognize up to motivation and behavior of, controls, and to monitor (Mrdly, 2008). Also Mrvtag and Todd (2004), argue that self-regulation, the function of
gravity effects on impulse control, time management and dealing with stress is (Mrdly, 2008). The main framework of learning theory and self-regulation by Zymmman Martinez - tack (1986) has been proposed. Theory Zymmman et al (1986), Self-regulation is based on how students of cognitive, motivational, and behavioral learning in order to improve (Zimmerman and Martinez tack, 1986). Research has shown that students in terms of academic self-regulation if far superior to the other students who are not measures of self-regulated learning (Pyntryj and de Groot, 1990; Zimmerman, 1995; Zimmerman and Martinez, 1986). In addition, research shows that many students who can aspects of cognitive, motivational and behavioral adjustments to their academic performance as a learner have been very successful (SOBHANI and ABEDI, 2006; Samadi, 1,383th; Banduraā., 1997; Quote from Kajbaf, 2003). Ndrmn research results and Yang (1994), Lane and Hyde (1989), Samadi (2004) and Namdarpvr (2008), was found between boys and girls in Self-regulation strategies used in learning management there seems to be no significant difference in the strategies used exam Self-regulation may be due to Test anxiety is (diphenhydramine run out quoted Abedi,2001), Also noted, anxiety can negatively impact academic performance and unfavorable conditions for a make. The study also found Kajbaf (2003), in the context of self-regulated learning strategies showed that anxiety levels significantly higher in female students than male students. The results with the results Pntrych and de Groot (1990), Ndrmn and Young (1994) and Lane and Hyde (1989) is consistent. Among the reasons that can be cited for this lack of difference, awareness of student learning strategies over time. Pntrych and de Groot (1990), in their studies suggest that different types of strategies used by boys and girls to learn.

Other topics in the bathtub contemporary cognitive science and education, and the creation of numerous studies have investigated the role of gender in this context. Gylfvrd definition of creativity, skill and ability to create is to make something new and innovative (Gylfvrd, 1973). Gylfvrd the other hand, believes that the academic achievement of students who are better off are more likely than others to have creative thinking (Gylfvrd, 1973). According to a different study found no significant difference between creativity and sexuality. For example, research conducted by Suresh and Mtvya shown that girls are superior to boys in divergent thinking and convergent thinking did not differ between boys and girls (Scribe, 2003; Mohseni, 1997, as quoted by Naderpour, 1997, Call and Malik, 2009). Several experiments have shown that the creation of new ideas, women are more prone to loss. Professor Lehmann has shown in his study of the decline of creativity among men than women, and only in recent decades that women have the opportunity to have their creative wings, may Bgstra.'s A Analysis of the between the two genders difference psychological was acquired, not innate differences (Asbyvrn translation Qasemzadeh 1996). The research was done by Suresh and Mtvya shown that boys and girls are superior in divergent thinking and convergent thinking did not differ between boys and girls (Scribe, 2003). Iranian researchers compared the mean creativity, in any part of the Torrance Test verbal score Creative did not observe significant differences between boys and girls, and only a nonverbal test of significant differences between the two groups said. MOHSENI (1997), in their study implicitly found that there was no significant difference between male and female creativity. Also according to the same study, guide and Malik (2009), no significant differences were found between male and female creativity (Guide, Abdul Malik, 2009). Also, Kim and Michael (1995) also found that girls are more creative than boys. Course seems to be a source of cultural importance that society attaches to gender role conflicts are very creative people and also the development of creative thinking disrupted to. therefore appears that social restrictions on girls than boys in science and exploration activities at the stage of growth is caused by the absence or reduction of women in society is creativity (Hosseini, 2008) . However, given the evidence above, compares the results of which are creation of men and women, are not co-ordinated.

Given the background of the research is based on numerous factors and components of the subjects above, seems to be that the scores of boys and girls in academic achievement, self-efficacy, self-regulation and creativity is different. This study sought to compare the scores of boys and girls in academic achievement, self-efficacy, self-regulation and creativity has been prepared.

The aim of this study was to compare the scores of boys and girls in the areas mentioned above and aims to answer these questions:
Do male and female students' scores on academic achievement, self-efficacy, self-regulation and creativity is different?
The study will also attempt to answer the hypotheses that follow are:
1. There is a difference between the achievement of boys and girls.
2. There is a difference between male and female self.
3. Autoregulation is a difference between boys and girls.
4. Creativity is a difference between boys and girls.
MATERIALS AND METHODS

This method, according to the nature and intended purpose of the comparison is casual. Population, sample and sampling: The population in this study was Roudehen all university undergrads were enrolled in school year 89-90. The sample in this study using the formula \( n = \frac{\sigma^2(z - \frac{\alpha}{2})}{d^2} \). For each group (146 girls and 154 boys) were selected by the researcher, including the loss of 150 selected subjects in each group (Kramer, E. Witt, translated Sharifi, Najafi does Mirhashemi, noble, spiritual, M., 2009). In this study, a stratified random sampling method was used. Students who graduate from this course into 5 categories (behavioral sciences, language and literature, mathematics, economics, engineering, and social studies) were divided in proportion to the percentage of each class are in the ratio of were measured (Kramer, identity, translation, Sharifi et al, 2009). After classifying students based on the students from each group was selected from each of one or two courses, one class was randomly selected.

1-Self-efficacy questionnaire:

Efficacy questionnaire used in the study by Scherrer et al (1982) have made including 17 females and its translated form by Barati (1996) is provided. Scherrer et al (1982), the alpha level of 0/86 reported. Barati (1996), in a sample of 100 patients to test the reliability of the method of Spearman - Brown and Gutman Dvynymh equal to 76/0 win and alpha 79/0, respectively, which are satisfactory (Fvladchng, 2003).

2-Bvfard self-regulation:

For the 14-item questionnaire measuring self-regulation in this study Bvfard and colleagues (1995, cited Kadivar, 2001) is used. Kadivar (2001), using Cronbach's alpha reliability coefficient of 0/71 and reports have shown that the test is able to explain 52% of variance in self-regulation (Kadivar, 2001).

3-Questionnaire Measurement Creativity Abedi:

This Test At 1984, on Basis Theory And Definition Torrance Of Aqyt Khel, 60 Article by Abedi was built in Tehran, test-retest reliability of this test on high school students of Tehran (1984) in a four-part test thus obtained. Reliability coefficient of fluid 0/85 Initiative, 82/0, flexibility, 84/0, stretch 80/0, respectively. Estimates of internal consistency using Cronbach's alpha test run on the 2262 student creativity Abedi Spanish (1994) obtained an internal consistency coefficient for the fluid 75/0, flexibility, 61/0, Initiative 67/0 and extends 61/0 the was (Abedi, 1993). Adequacy (1974), using the ratio test Tnsyf 87/0, fluent 78 0 / flexibility, 63/0, Initiative 40/0 and extends 67/0 win them all at level 001/0 between has been (sufficiently, 1994). Based on academic achievement scores of students in a course is evaluated. The following methods were used for statistical analysis in this study:

Appropriate variables and data collected in order to describe the central tendency of the index, dispersion and distribution of scores Were used. For data analysis, the test T two independent groups.

RESULTS AND DISCUSSION

Hypothesis 1: There is a difference between the achievement of boys and girls.

Table 1. Summary of test results t Independent group of academic achievement

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>146</td>
<td>16.28</td>
<td>1.72</td>
<td>298</td>
<td>2.686</td>
<td>0.008</td>
</tr>
<tr>
<td>Boys</td>
<td>154</td>
<td>15.73</td>
<td>1.82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** p < 0.01

Given the amount t Calculated (2.686) and significant level (0.008) with 99% confidence, the null hypothesis can be rejected. In other words, the mean achievement scores of male and female subjects are different. Therefore, one can conclude that there is sufficient evidence for the first hypothesis.

Hypothesis 2: There is a difference between male and female subjects self.
Table 2. Summary of test results \textit{t} Independent groups in efficacy

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>146</td>
<td>61.73</td>
<td>9.91</td>
<td></td>
<td>298</td>
<td>0.046</td>
</tr>
<tr>
<td>Boys</td>
<td>154</td>
<td>61.68</td>
<td>9.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the amount \( t \) Calculated (0.046) and significant level (0.963) with 95% confidence, the null hypothesis cannot be rejected. In other words, the difference between the mean scores of male and female subjects, there is no self. Therefore, one can conclude sufficient evidence to accept the hypothesis that there is no 3 hypotheses: There is a difference between male and female self-regulation.

Table 3. Summary of test results \textit{t} Independent groups in auto regulation

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>146</td>
<td>53.08</td>
<td>6.71</td>
<td></td>
<td>0.551</td>
<td>298</td>
</tr>
<tr>
<td>Boys</td>
<td>154</td>
<td>52.64</td>
<td>7.08</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the amount \( t \) Calculated (0.551) and significant level (0.582) with 95% confidence, the null hypothesis cannot be rejected. In other words, the mean score difference between male and female subjects, there is self-regulation. Therefore, one can conclude that there is sufficient evidence for the second hypothesis.

Hypothesis 4: There is a difference between male and female subjects creativity.

Table 4. Summary of test results \textit{t} Independent group creativity

<table>
<thead>
<tr>
<th>Sample</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>df</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>146</td>
<td>132.46</td>
<td>16.40</td>
<td></td>
<td>298</td>
<td>0.072</td>
</tr>
<tr>
<td>Boys</td>
<td>154</td>
<td>132.32</td>
<td>17.45</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Given the amount \( t \) Calculated (0.072) and significant level (0.943) with 95% confidence, the null hypothesis cannot be rejected. In other words, the difference between male and female subjects, there is a creative level. Therefore, it can be concluded that there is sufficient evidence to accept the hypothesis.

\textbf{DISCUSSION}

In the present study, comparisons Da Studying gender in academic achievement, self-efficacy, self-regulation and creativity of undergraduate study.

To test the first hypothesis of this study was to compare the achievement scores of male and female students were examined. Results of this study show that the mean achievement scores of boys and girls are different, in other words mean achievement in girls than boys. these findings, the results Shrd (2009) are consistent and female students showed significantly better performance than are boys. The research findings, Dumais (2004), Mello and Roll (2006), No one (2005), Saif (2004) and Prosper Khalid (2010) are consistent with the research of Klayftnvn (2008), is Nahmsv.

The explanation for this finding Motivation can be significant advances in recent years and the increasing number of female students at the university level, including control of the point. On the other hand, seems to focus more girls in the family and society in recent decades in the academic achievement of affected. It also seems to think negatively about the future among girls than boys.

To test the second hypothesis of this study was to compare the efficacy scores for girls and boys Berrer was thirty. Results showed no difference between the mean scores of boys and girls efficacy. Ahmadi find the bottom of this survey part of the study (2005), which was conducted by gender is consistent with part of the study, Alderman (2001), the girls have described the efficacy of Nahmsv. findings of this study show that the students in question have high efficacy and low-efficacy compared to those who are in school, higher academic performance, school work and more choices, higher levels Educational opportunities are. So based on the cognitive perspective - social, motivational variables, such as self-concept or self-esteem than other people, and in some cases even more variables, such as ability or talent can be a predictor of academic achievement. These goals and challenging tasks that require more effort to choose, endurance and perseverance have more homework and less responsive to failures show (Fvladchng, 2003).
To test the third hypothesis, the Self-regulation of this study was to compare the scores of boys and girls were examined. Results showed no difference between the mean scores of boys and girls autoregulation. Seems to provide faculty with the Shara‘i suitable for the growth of self-regulation and self-regulated learning strategy training, students have the opportunity to learn more and more appropriate for the learning environment. They provide a positive Dpndarh involved in growth habit. Self-regulation can be viewed as academic skills so that learning can be achieved to increase academic achievement.

The fourth hypothesis creativity scores were compared for boys and girls. Results showed no difference between male and female levels of creativity. This finding is consistent with research conducted Suresh and Mtya. They converge in thinking there is no difference between boys and girls (Scribe, 2003). The results Mohseni (1997), Call and Malik (2009), are consistent in their research that implicitly found that there was no statistically significant difference between male and female creativity. This finding of Lehmann (quoting Asbvrn, 1996), Nahmsv is creative in his own study has shown that depression among men than women. Seems to be different because of the different motivational conditions that lead to creative performance different are girls and boys and is due to differences in the groups studied.

Based on the results of this study can help in many areas of applied research skills training, self-efficacy, Self-regulation and creativity of the students and the students. We suggest that the universities to foster creativity, self-efficacy and self-regulation through planning and implementation of special education programs, students develop these skills. It is suggested that the process of education and career guidance and counseling, the level of self-regulation, self-efficacy and creativity of individuals to be considered.

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