THE STUDY OF THE INFLUENCE OF INTEGRATIVE TEACHING (COOPERATIVE, PROJECTIVE AND TRADITIONAL) ON THE EDUCATIONAL MOTIVATION OF STUDENTS, STUDYING IN THE 6 DEGREE OF THE ELEMENTARY SCHOOL IN ORUMIYEH CITY, FOR THE MATHEMATIC LESSON IN THE ACADEMIC YEAR OF 2012-2013

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ABSTRACT
This study was performed to compare the collaborative, project and traditional consolidated teaching in terms of the Educational Motivation of Students of the primary 6th grade students in mathematics in the academic year of 2012-13, District 2, Urmia. This study is placed in a quasi-experimental design group. The project design is two heterogeneous groups with b pre-test and post-test. 40 students from the primary 6th grade students were selected by the multi-stage cluster sampling. They were classified in two groups of test group and control group. The tool of this study is the academic achievement of the primary 6th grade mathematics (the chapter of statistics and probabilities). The results showed that the consolidated teaching (collaborative, project and traditional) has effect on the Educational Motivation of Students of 6th grade students in mathematics.

Keywords: Integrative Teaching, Educational Motivation of Students, Collaborative, Project and Traditional

INTRODUCTION
"Active methods of teaching" are those methods in which the human’s mind is activated and the necessary situation for learning are provided by the teacher and also the mental skills and thought abilities are strengthen. Moreover, the inter-group relation and strengthened cooperation are growing together with the individual self-confidence, discovery learning, conceptualization, explanation and analysis of the issue and the students are directed to achieve the subject and tolerate the ambiguity. Also, their creativity spirit and individual autonomy are strengthened; the nature of active methods of teaching is in the way that the class is considered as the continuation, center and educational leader of thought flow (Soleiman, 2005).

Having done many studies and researches in this respect, Benjamin Bloom also concluded that the most obviously influential education related criterion was the extent to which the students cooperated in the class (Seif, 1997). The new and developed theories of cooperative learning for group research shows that learning is effective only when the learner plays the main role. The teacher should play the role of a director or advisor and try to engage the students as far as possible in the class activities in different ways. Those groups of teachers who teach through an indirect method are more efficient than those teachers who do not use this method. While the students are more active in an indirect teaching method and the teacher tries to engage them in thinking and learning, the teacher only presents material to the students in a direct learning method (Fazli, 2001). Cooperating students in the learning procedure is not exclusively related to posing a question but cooperating the students in all teaching stages including beginning of the lesson, presentation of lesson and short summary of it is also charged by the teacher. Moreover, the students should consult the teacher concerning the way the class is directed, teaching is going to occur and even how the evaluations are made. Also, the teacher searches for the students’ ideas and suggestions since giving the students a chance to present their views causes to satisfy the students’ need for showing off and also prohibit many abnormal behaviors.
Research Article

Educational Motivation

The concept of motivation has frequently been the center of attention for human society especially researchers and expertise in the field of teaching and learning. In the recent decades, many theorist and researchers in educative psychology consider pay close attention to the academic behavior psychology and motivation patterns. The academic motivation consider as the common psychological motivation which refers to the individual interest for achieving the academic aim by influencing different kinds of academic activities. This construct occurs when the person tends to be aware of the way cognitive and motivational processes influence the individual activities for academic progress. The academic motivation is closely related with the students' specific aims, views, special believes, methods to achieve them and their individual attempts and efforts. The study on the academic motivation in the contemporary emphasizes the distinctiveness of motivation orientations among students in different situations (Shahni et al., 2005).

The academic motivation, referring to the academic involvement, is defined as the students' cognitive, emotional and behavioral criteria to present their interest in their education and school (Tucker et al., 2001). According to Tucker et al., (2002), the students with low motivation work unwillingly. In fact, different studies showed that the academic motivation directly influences the academic performance while other influential factors on the academic performance largely influence the academic performance through motivation. Oriahi (2009) showed that students' motivation played the key role in their decision to continue their study and it is positively related to their academic performance. In the study done by Guay et al., (2005), they investigated the students' academic motivation to show that the academic motivation and its different aspects (writing, reading, and mathematics) are positively interrelated to the academic self-concept (the relation among all aspects are from 0/50 to 0/74) and the internal regulation and the academic progress are negatively interrelated.

The mathematic problems are those kinds of problems which can negatively influence the students' psychological and educational state, even their families and teachers. Having the good academic motivation, especially the mathematic motivation, is considered as one of the most important factors which cause the students to be effectively adjusted to the teaching and the school (Pintrich, 2003; as cited in Narimani, 2012). The mathematic problem may result from the mathematic motivation, one of the aspects of the academic motivation. The different studies showed that the mathematic motivation influenced the students' performance (Alaei et al., 2012). For example, Mullis et al., (2000) showed that those students with the positive attitude towards mathematics act most likely better in mathematics. Furthermore, Ramserier (2001) demonstrated that the aspects of motivation, e.g., external orientation, long-term orientation, progress orientation and confirmation orientation were related to the students' performance and interest in mathematics. In the study done by Kyoung et al., (2005), they also showed that the internal motivation positively and the external regulation (control) negatively influence the students' performance in mathematics (Arian, 2013).

MATERIALS AND METHODS

Methodology

This study, like most research is done in education, is applied, because it has tried to develop the practical knowledge in consolidated teaching and given that the random assignment of individual and in spite of the control group, the annoying factor cannot be controlled, this study is placed in the quasi-experimental design group (Sarmad et al., 2010).

The Population

According to the statistics obtained from the Management of Education, District 2, Urmia, in the academic year of 2012-13, the population of sixth grade students in the area is 6457 students and the total number of primary schools is 169 schools and the total number of classes at this grade is 207 classes.

The Sample (Sample Size and Sampling Method)

Multistage cluster sampling method was used in this study due to the broad studying population. First, all the primary schools which have 6th grade were selected, then, Pishdad and Danesh primary schools were
selected randomly among them. In each of them, a class with 20 students was selected. The students of Pishdad School received a consolidated teaching as a test group and the students of Danesh School were taught traditionally as a control group.

**Data Collection Tools and Reliability and Validity**

In this study, the most common instrumentations for gathering data in human science, e.g., the questionnaire is used. In order to gather some of data, the test is used. In this study, the questionnaire of Harter’s (1981) academic motivation is used. In order to measure the reliability of Harter’s (1981) academic motivation, at first, two classes of students including 20 members in 6 degree are selected accidentally from area 2 of Orimiyeh city then the mentioned questionnaire is distributed among them. Next the gathered questionnaires are analyzed by the use of SPSS 19 software. Finally, the result of the study through Cronbach’s Alpha is 0/83 and 0/74, respectively. Therefore, this questionnaires show the good level of reliability. Moreover, in order to measure the academic motivation level, the revised form of Harter’s (1981) academic motivation is used and the level of the reported reliability coefficient averages from 0/61 to 0/86 and it is scored form "never" to "always" based on Likert’s scale 5 degree (Bohrani, 2009).

**RESULTS AND DISCUSSION**

**Descriptive Findings**

**Table 1: Status of the Academic Motivation for the Experimental Group in the Pretest**

<table>
<thead>
<tr>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>101/65</td>
<td>5/78</td>
<td>112</td>
<td>89</td>
</tr>
</tbody>
</table>

**Figure 2: Histogram of the Academic Motivation for the Experimental Group in the Posttest**

Regarding the table 2, it can be observed that mean and standard deviation for the academic motivation for the experimental group in the posttest are 120/50 and 6/41, respectively.

**Table 2: The academic motivation position for the control group in posttest**

<table>
<thead>
<tr>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>120/50</td>
<td>6/41</td>
<td>130</td>
<td>108</td>
</tr>
</tbody>
</table>

Regarding table 3, it can be seen that the mean and standard deviation for the academic motivation in control group for the pretest are 98/80 and 6/04, respectively.

**Table 3: Status of the Academic Motivation for the Control Group in the Pretest**

<table>
<thead>
<tr>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>98/80</td>
<td>6/04</td>
<td>110</td>
<td>86</td>
</tr>
</tbody>
</table>

Regarding table 4, it can be understood that the mean and standard deviation for the academic motivation for the control group in the posttest are 101/95 and 4/94, respectively.

**Table 4: Status of Academic Motivation for the Control Group in the Posttest**

<table>
<thead>
<tr>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>101/95</td>
<td>4/94</td>
<td>110</td>
<td>90</td>
</tr>
</tbody>
</table>

**Testing First Assumption**

The integrative teaching (cooperative, projective, and traditional) influences the academic motivation of the students studying the mathematic lesson in the 6 degree.
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In order to test this assumption, the dependent t-test is used. Therefore, the questionnaire of the academic motivation is distributed twice among the student of 6 degree. In this way, the academic motivation questionnaire is distributed once before taking the independent variable (integrative teaching) and once after taking independent variable (integrative teaching).

Table 5: Dependent T-test to Compare the Academic Motivation in the Pretest and Posttest for the Control Group

<table>
<thead>
<tr>
<th>test</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>FD</th>
<th>t</th>
<th>Sig- (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pretest</td>
<td>20</td>
<td>101/65</td>
<td>5/78</td>
<td>19</td>
<td>10/301</td>
<td>0/000</td>
</tr>
<tr>
<td>posttest</td>
<td>20</td>
<td>120/50</td>
<td>6/41</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regarding table 5, it can be observed that the dependent t-test to compare the students’ academic motivation in the control group in both pretest and posttest. The number of the students in the pretest and posttest is 20 persons and the mean is 101/65 and 120/50, respectively. Also, the standard deviation is 5/78 and 6/41, respectively. Moreover, the degree of freedom is 19 and the t-test is 10/301. Since the significance level is 0/000 and it is less than 0/05, then it can be concluded that the scores for the academic motivation among students in both pretest and posttest are statistically significant. Therefore, the null hypothesis is rejected and the research assumption is confirmed. Then, it can be concluded that the integrative teaching (cooperative, projective and traditional) influences the academic motivation of the students studying in the 6 degree for the mathematic lesson. Moreover, in order to calculate the extent to which this kind of teaching influences the t-test for the dependent samples, the eta square is used. The extent to which the eta square can be influential in this assumption is expressed by the following equivalent:

\[
Eta \ square = \frac{t^2}{t^2 + (N-2)} = \frac{10.301^2}{10.301^2 + (20 - 1)} = 0.85
\]

The necessary instruction to analyze this amount is presented by Cohen (1988) and it can be interpreted as follow:
- 0/01=small
- 0/06=medium
- 0/14=large

The eta square is calculated as 0/85 and it is interpreted as very large. Then, it can be concluded that the students’ score for the academic motivation are noticeably different in both pretest and posttest.

Testing the Second Assumption

Regarding the kind of teaching (integrative and traditional), there are differences among the score of the students, studying in the 6 degree, for the academic motivation in the mathematic lesson.
In order to test this assumption, the independent t-test is used.
Also, the students are divided into two groups, one of the groups includes those students who are taught through the integrative teaching in the 6 degree for probability and statistic lesson of the mathematic book (the experiential group) and the other group includes those students who are taught through the traditional method (control group).

Table 6: Dependent T-test for Comparing the Academic Motivation in the Posttest in both Experiential and Control group

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>DF</th>
<th>T</th>
<th>Sig-(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The experiential group</td>
<td>20</td>
<td>120/50</td>
<td>6/41</td>
<td>38</td>
<td>10/24</td>
<td>0/000</td>
</tr>
<tr>
<td>The control group</td>
<td>20</td>
<td>101/95</td>
<td>4/94</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Regarding the table 6, it can be observed that the dependent t-test is used to compare the academic motivation in the posttest for both experiential and control group. The number of students in both groups is 20 persons and the mean for the experiential and control group is 50/120 and 95/101, respectively. Also, the standard deviation is 6/41 and 4/94, respectively. Moreover, the degree of freedom and t are 38 and 10/24, respectively. Since the significance level equals to 0/000 and this amount is less than 0/05 the mean score difference of the academic motivation for the experiential and control group members studying in the 6 degree for the mathematic lesson are statistically significant. Therefore, the null hypothesis is rejected and the research assumption is confirmed. Then, it can be concluded that in terms of the kind of teaching (integrative and traditional), the academic motivation of the students studying in the 6 degree are different for the mathematic lesson. Also, in order to calculate the extent to which it influences the t-test for the dependent samples, the eta square is used. The amount of effect or eta square for this assumption equals:

\[ Eta \ square = \frac{t^2}{t^2 + (N_1 + N_2 - 2)} = \frac{10.24^2}{10.24^2 + (20 + 20 - 2)} = 0.73 \]

Regarding the fact that eta square is 0/73 and it indicates the large effect, it can be concluded that there are noticeable difference in the academic motivation score of the students studying in the 6 degree in both experiential and control group for the mathematic lesson. Moreover, considering the mean score for the experiential and control group, it can be concluded that the integrative teaching (cooperative, projective and traditional) are more influential than the traditional method in increasing the academic motivation among the students studying in the 6 degree for the mathematic lesson.

**Discussion and Conclusion**

**First Assumption**

The integrative teaching (cooperative, projective and traditional) influences the academic motivation of the students’ mathematic score in the 6 degree. In order to test this assumption, the dependent t-test is used. So, the academic motivation questionnaire is distributed twice among the students educating in the 6 degree. For this purpose, the academic motivation questionnaire is distributed once before giving the dependent variable (the integrative teaching) and once after giving the dependent variable (integrative teaching). Since the significance level is 0/000 and this amount is less than 0/05, it can be concluded that academic motivation score of the students in both posttest and pretest are statistically different. Therefore, the null hypothesis is rejected and the research assumption is confirmed. Then, it can be concluded that the integrative teaching (cooperative, projective and traditional) influences the level of academic motivation among students studying in the 6 degree for the mathematic lesson. Furthermore, the eta square is calculated as 0/85 and this shows the large effect. Then, it can be concluded that there are noticeable difference in the score taken by the students in both posttest and pretest in terms of the academic motivation.

Smith and Laurd (2012) asserted that both learners’ and teachers learn and search more interestingly in the integrative teaching. Therefore, the learning procedure occurs deeply and more efficiently. It seems that the combination of extra-multimedia teaching with the face to face teaching can increase the learners’ motivation and academic progress and all these factors can lead to improve the teaching quality and the learners’ ability in facing the challenges in the educational environment and can cause to decrease their deterrent to continue their study. Regarding the results achieved from the previous studies and comparing these results with the results of this assumption, it can be concluded that these results are in line with the results of the previous studies.

**Conclusion for the Second Assumption**

Regarding the kind of teaching (integrative and traditional), there are differences in the mean score of the academic motivation for the students studying in the 6 degree for the mathematic lesson. In order to test this assumption, the dependent t-test is used and the students are divided into the two groups while one of the groups includes those students who are taught through the integrative teaching method for the probability and statics lesson in the mathematics (the experiential group) and the second group includes those students who are taught through the traditional method for the above mentioned...
lesson (control group). Since the significance level is 0.000 and this amount is less than 0.05, then the mean score difference are statistically significant for the academic motivation of the two groups (the experiential and control group) studying in the 6 degree for the mathematic lesson. Therefore, the null hypothesis is rejected and the research assumption is confirmed. Then, it can be concluded that the mean score for the level of the academic motivation among the students studying in the 6 degree for the mathematic lesson is different in terms of the kind of teaching (integrative and traditional) are used. Regarding the fact that eta square is 0.73 and this shows large effect, it can be concluded that there are noticeable differences in the academic motivation score taken by the students studying 6 degree in both experiential and control groups for the mathematic lesson. Furthermore, concerning the mean score in both experiential and control group, it can be implied that the integrative teaching (cooperative, projective and traditional) is more influential than the traditional teaching in increasing the academic motivation of the students studying in the 6 degree for the mathematic lesson.

French (1987) believed that the power for the academic motivation and the static performance in doing assignment were directly interrelated. Accordingly, the learners’ awareness of the fact that they will achieve some of the social profits including approval, promotion, acceptance in the university, better job, more credibility, more money, more interesting job and more important responsibility, increases their educational academic motivation.

Regarding the results achieved from the previous studies and comparing these results with the results of this assumption, it can be concluded that the results of the present study are in line with those achieved in the previous studies.

Suggestions

It is suggested to the teachers active in the governmental education system pay more attention to the integrative teaching (cooperative and projective) method and efficiently use this method as an active teaching method. As it is showed in this study, this method can decrease the students’ exam stress for the mathematic lesson. Also, since the governmental education system is directly related to the students’ academic failure in the educational terms and this is considered as a serious issue and since between 20 to 30 percent of the students’ academic failure is resulted from the exam stress, this educational method can play key role in decreasing the exam stress and also promote the students’ academic status and performances.

REFERENCES


