The evaluation and comparison of descriptive evaluation with the traditional evaluation (quantitative) in the education self-concept between the students of primary school (Shahriar in Tehran)

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ABSTRACT

Objective: The descriptive qualitative evaluation is one of a program of education which is accomplished in order to improve the evaluation system in education. This research is done in order to evaluate and compare the descriptive and traditional evaluation of self-concept on the creativity of the students of primary school of Shahriar in the academic year of 93-94. Methodology: The research methodology is the casual-comparative. The statistical society of this research were third and fourth elementary school students of descriptive evaluation plan (330 person), the students of both descriptive and traditional evaluation were chosen according to a random sampling of the ratio tray. Tools for data collection was made the self-concept education questionnaire of Chen, the creativity test of Torrance (form B) and the achievement test of Mohagegh. For data analysis in the case of normal distribution was used the T test of two independent groups and if be abnormal was used corresponding non parametric tests. Results: The obtained results showed that the students in the schools of moderator of descriptive qualitative evaluation are experienced more creativity and self-esteem compared to students in traditional schools. Conclusion: Finally, the students under the descriptive evaluation system have more positive education self-concept compared to the students who are under the quantitative evaluation system. Therefore, the descriptive evaluation has been caused the creation of the positive education self-concept in the students. This result can be interpreted based on the positive features of descriptive evaluation.

1. Introduction

The threat posed by landslides has always attracted the researchers’ attentions toward the possibility of predicting this type of natural disasters. Landslide is the gravity-The evaluation system is one of the main chains in the curriculum of each country which not only is affected the learning strategies of students, but also is affected on the type of activities and the method of performance activities in the schools. “The evaluation method should be determined based on the type of target and the accomplished terms and activities, but in many unhealthy educational systems, the evaluation method is affected the targets and in particular the educational activities (Christopher Damian, 2010). In such systems, the teachers and educators instead of creating the favorable conditions for training and doing targeted proportional activities and experiences, are focused all of their efforts for exam success and evaluation and by doing useless and overwhelming exercises follow the success of students in the educational process and as a result the evaluation which should be the criteria for achieving or failure to educational goals is placed instead of educational goals”. With this legislation is formed the specific model for the evaluation of academic achievement in country which until today the existence of many changes in its clauses and components, its original spirit and approach is remained unchanged and stable (Tamilarasu, 2015; Vaughan, 2003). In the recent years, this pattern of assessment of educational progress over many years of experience is criticized by scholars and experts in the educational system and little by little its weakness is revealed. Hence, the discontent and need to change in this subsystem is increased among the policy-makers and decision-makers. However before that the demands of these changes is commenced in the subsystem assessment of educational progress with the emergence of some new ideas in the psychology and a new vision of education in the world and in many countries. As well as changes in the planning system, so that according to Choi (2005) had the lesson demonstrated the

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necessity of change in the assessment of educational progress, generally the change model of curriculum was considered on the following two fundamental axes:
1) The shift from teaching to learning
2) The shift from the central issue to core competencies.

These change axes show that the educational evaluation also should be changed. In Iran can be noted the first major change in the seventies solar with the title of “the continuous evaluation or split”. After the implementation of these changes in the educational system, the act of 679 session of the supreme council of education dated in 21 Nov 2001, the ministry of education received the permission of change of the quantitative scale to qualitative scale in the evaluation of primary school’s students in the trial form of the current school year (2001-2002). According to this, the office of academic and educational evaluation department of public instruction provided the general plan of “descriptive evaluation in the primary schools” and offered to supreme council of education (Rajai, 2011). The deputy commissioner of the supreme council of education after reviewing and make amendments to the general plan approved it and issued it to the department of public instruction to run in the trial form in the first grade of primary school in some educational areas of country. According to this, the descriptive-qualitative evaluation plan was done in the pre-trial form in 25 classes, in 5 provinces (Sistan and Baluchestan, Esfahan, Zanjan, Tehran and East Azarbaijan) in the academic year of 2001-2002. After review of this experience and to apply necessary changes, the plan was ready for trial performance in 2002-2003 and finally is implemented in all of primary schools of country. In fact, the descriptive qualitative evaluation has a new look the role of teacher, the role of student and the position of evaluation in the teaching-learning process, which is formed under the influence of new findings of psychology, the new approaches in curriculum and taking advantage of the experiences of other countries. In the other words, the descriptive qualitative evaluation is a model of evaluation, which shows itself in the course of teaching. This activity is included collecting information and judgement about the state of learning and the progress of student. The collecting of these information accomplished through the various tools and in the end, the teacher by using the obtained results and with respect to objectives and expectations of the training is judged about the individual’s condition, is specified the student’s strength and weaknesses and to improve the learning activities offers the appropriate feedback and guidance. Some observations has shown that the descriptive evaluation causes to reduce pressure and harmful competitions in classrooms in schools, to prepare the learning environment to more and more favorable learning for the student and helps to growth and increased of their self-esteem. Also the students in the classrooms which in them runs the descriptive evaluative evaluation have ability to express more existence, therefore in this saving partnership have shown interaction with classmates and with teachers from itself. Since its plan is done in the trial form until today has attracted the attention of many researchers and thus have been done many researches in this context. The checking of the history research of descriptive qualitative evaluation show that over seventy research projects in Iran has been done from different angles. One of them, which is appeared very high frequency, is attention to the evaluation and the checking of results and the effects of descriptive qualitative evaluation in the class and on the students. In the basic documents relating to the descriptive qualitative evaluation plan is considered two main objectives for this plan, therefore, a significant part of researches have been in the case of the realization of these two goals in the schools of executing of this plan (Brookhart et al., 2010). The original designers of this project have defined the goals for it which amongst can be cited the increasing of students’ mental health in the teaching-learning environment by providing the descriptive qualitative feedback. Hence, we are witness that the education development variable and the variables related to the mental health including self-esteem is taken in to consideration of researchers. The efforts of designers was that by implanting this method is prevented from the occurrence of damages like anxiety, get motivated and reduce of confidence in the learning and the students will be able to learn in an atmosphere without pressure and anxiety. The descriptive qualitative evaluation with its orientation takes steps in order to provide an environment without stress and pressure. The depreciation of final exams during the evaluation of educational achievement and the determination of basic promotion and the omission of score will be cause reduce of violence, the humiliation and blame and insult of students. The remove of ultimate impact of final evaluation in determining the promotion of students and the reducing of school competition is prevented to create mental damages. The mental health has many components which the self-esteem is one of its important components. In fact, this component is considered as basic human needs. A person who has a high self-esteem is assessed himself in a positive way, has a good greeting with himself and others. In contrast, a person who has a low self-esteem must be isolated and avoids of communicating with others, or tries in frustration to show to himself and others is a worthy person. The existence of dynamic and constructive evaluation which is removed any anxiety from the students and be guarantee to create the mental peace, as well as, lack of the destructive competition environment and an inappropriate comparisons and the lack of emphasis on failures and conversely the emphasis on the students’ successes by itself causes the formation of positive self-concept and the occurrence of self-esteem. However, having self-esteem causes the educational development, because self-esteem and the positive perception of self has effect in learning and the motivation for studying. Also the academic successes and to reach the high levels causes the improving of self-esteem.

On the other hand, the descriptive qualitative evaluation in order to enhance learning has been transformed his approach of (assessment of learning). According to this, the evaluation happens not only as an independent and specific activity of teaching-learning process but also mixed with it and in the process. Specialists believe that with this approach can be played as well the role of modifier and improving of learning in the process of learning. The result of this approach will be increasing of educational development. With the changing of evaluation approach will be increase the interaction between the students and teacher and its axis is the feedbacks which is exchanged between the teacher and the student to improve learning. The effective and timely feedbacks which is presented from various sources makes compatible the learning process with the students’ needs and in this way the learning process be developed and improved. The creation of such constructive atmosphere in the classroom but a constructive in the classroom should leads to improve student learning. This topic even theoretically in evaluation of background research of the descriptive qualitative evaluation, many researches have been done about the evaluation of two outcomes, namely, the educational development and the improving of mental health component including self-esteem which is evaluated in the following. In a pilot implementation of the descriptive evaluation plan in the selected schools of country, meanwhile the enumerating of done activities for the trial implementation of the descriptive evaluation plan has been paid to examine the anchors of project towards the strengths and weaknesses of it. According to this report some of the strengths and the positive outcomes of the project is announced as follows:
attention to the emotional and behavioral areas, the reducing of test anxiety, attention to the continuing evaluation, the reduction of target pressure to earn score (especially twenty score), the increasing of interest in learning, a variety of data collection tools, the increasing of interaction between parents and school, the increasing of mental health of learning environment, the reduction of fraud phenomenon, the finding value of student’s activity.

Ahmadi (2007) is one of the first researchers who has been noticed to this topic. He in a research to evaluate the effectiveness of descriptive evaluation on a behavioral disorders is acted to performance the Rater test in a host and non-host schools and then has been compared the results of test. The results of this research show that the behavioral disorders is decreased in a schools covered by the descriptive evaluation plan (girls and boys) and while has been increased in a control schools. Boston (2009) research has been done to evaluate the effectiveness of descriptive evaluation to deepen the students’ learning. This study has been done in two groups of students covered by descriptive evaluation (142 people), the trial group and non-descriptive students (143 people), the control group. To measure the dependent variable of two groups of students has been implemented the educational development and the creativity test which the results show that the levels of learning of two groups has a significant difference. Namely the students covered by the descriptive qualitative evaluation in terms of learning have been in a better condition. Amiri (2006) in his research came to this conclusion that the quality of teaching-learning process of students of descriptive evaluation plan have been better than students of quantitative evaluation in the mental sustainability (the durability of learning), the motivation level of doing homework and the achievement of the objectives of physical dimension components. This researcher also announces the improving of students’ mental health in the learning environment of the other results of descriptive qualitative evaluation. Beigi (2009) in his research came to this conclusion that the included students of the qualitative descriptive evaluation plan in terms of academic achievement in mathematics and Persian have been in a better condition. Brookhart (2010) is another researcher who has paid to research in this field. He because of his research states that the educational development of students covered by plan is better. He also in his research shows that the level of student achievement of third grade primary of the included schools of descriptive evaluation plan in a cognitive variables such as knowledge, mathematics, science, Farsi language and also their metacognitive knowledge have been positive impact in a first group significantly qualitative descriptive. But in terms of the writing completely spelled Persian words, statistically, the qualitative descriptive evaluation has not impact towards the numerical evaluation on the enhancing of student’s accuracy in writing. Hunt (1997) in his research came to this conclusion that the educational development (the reminders of learnings) and the application of learnings of the students covered by the plan partially has been in a better condition compared to non-eligible students. In the other words, with the implementation of descriptive evaluation not only among the eligible students there is not the academic failure, but also their learning has improved partially even of qualitative (the reminders of learning) and even of quantitative (durability and the application of learnings).

2. Materials and methods

2.1 Research objectives

The main goal of this research is the comparison of descriptive evaluation (the new method) and the quantitative evaluation (the old method) on the creativity and the educational development of fourth and fifth primary grade students of Shahriar in Tehran. The special goals of the research are included:

1) The comparison of the effect of new and old method of evaluation of the self-concept of third and fourth primary grade students.

2) The comparison of the effect of new and old method of evaluation on the creativity and educational development of third and fourth primary grade students.

2.2 The research hypothesis

1) Between the attitude to the creativity of the students covered by the new evaluation (descriptive) compared to the eligible students of old evaluation method (quantitative) has exist a significant difference.

2) Between the self-concept of students covered by descriptive evaluation compared to the eligible students of quantitative evaluation method has exist a significant difference.

3) Between the achievement of students covered by descriptive evaluation compared to the eligible students of quantitative evaluation method has exist a significant difference.

2.3 Data collection

Since the description and traditional evaluation plan has been running in a circuit prior to the implementation of this project and the researcher hasn’t any control on its implementation and the possibility of manipulation and its change as an independent variable and only has been studied the present situation, therefore, the present research is descriptive and is the casual-comparative.

The statistical society, the sample and the sampling method of statistical society of this project are the third and fourth primary grade students of Shahriar in Tehran which are studied in academic year 2014-2015 in public schools of this city. The statistics sample is included 142 students (girl and boy) which were chosen by random sampling of classes proportional to population size. This means that the first group were chosen accidentally of schools which were under the descriptive evaluation, then the second group were chosen from schools which were under the quantitative evaluation and according to education in terms of level of enjoyment were similar to first group. The aim of the level of enjoyment is the circuit similarity from the facilities and the educational and economic conditions.

2.4 Measuring tool

In this research, to measure the student’s creativity has been used the test video of creative thinking of Torrance (form B), to measure the student’s academic self-concept has been used the academic self-concept questionnaire of Chen and to measure the student’s educational development has been used the researcher test made academic progress.
2.4.1 The self-concept questionnaire related to school
This questionnaire was made in 2004 by Chen after running on 1612 students of primary school. The focus of this questionnaire is the measurement of school self-concept of the elementary and secondary school students and according to this is measured the self-concept in three levels of general, school and non-school. This questionnaire is a kind of report which is included 15 items and the replies are designed as a Likert scale. In this questionnaire the minimum test score is 15 and the maximum is 60. The higher of test score compared to other tests is represented its more positive self-concept compared to others.

Validity and stability
The statistical analysis indicates that the standard deviation, the skewness and the stretch marks from the implementation of this test are placed in a normal condition. The correlation coefficient of three factors of general self-concept, school and non-school in order is equal to 0.75, 0.82 and 0.82. The Xi factor which is indicated the internal consistency the expressions of test, in different cases statistically shows the significant level. In a present research in order to knowledge of test validity, this questionnaire have been available for seven members of the faculty of psychology and educational psychology and two psychometric experts and their comments were collected. According to the comments of these individuals, the validity of questionnaire was in a desirable level. The stability of questionnaire in a present research by using the split-half method is obtained 0.79.

2.4.2 Educational development test
To measure the educational development of students was used a self-made test inclusive of the basic elementary courses namely, mathematics, Persian and science. This test was included 13 multiple-choice questions and was covered the overall objectives of book (the considered goals of curriculum planners). To check the reliability was used the Cronbach’s alpha coefficient. The calculated reliability coefficient for mathematics, Persian and science courses was obtained in order 0.84, 0.71 and 0.76. The reliability of the whole test also by the split-half method was obtained equal to 0.75.

2.4.3 Test video creativity (form B)
Is one of a series of tests of creative thinking of Torrance which was releases in 1974. The picture shapes of this test is required the responses which mainly have the graphic or visual nature. The using of these collection of video tests is recommended for the nursery level to after high school levels. In this test what is owner evaluation is the existence of idea in the form of image not its drawing quality. Therefore, any signs which is evidence of creative thinking will be in an evaluation. This form is included three activities which the duration of each activity is 10 minutes. The performance of the whole test totally lasted 30 minutes.

The content validity
Torrance for ensuring the validity of test content have been shaped the consistent and deliberate effort according to the stimulus tests, one Elif test, instructions and the grading procedures based on the best researches and comments which is available since. He in this work have been benefited very from the analyzing of the lives of genius, the research related to the character of genius creator, the nature of the functions which have been considered creator, the theories of the human mind and the like in the decision to choose the one Elif test.

The predictive validity
The predictive validity of creative thinking test is reviewed by its researcher in the short and long term and each are referring to the good predictive power of these tests. The researches with distance of 8 years showed the correlation of 0.62 with the initiative score and the correlation of 0.57 with an overall score of creativity. Torrance has been reported the reliability coefficient scores of creativity for the video tests from 0.88 to 0.96. The reliability scores of creativity in Iran as Pir Khaei has been noted for the video tests are 0.80. Pir Khaei, Borjali, Dalor and Eskandari also in their research are calculated the reliability of this test in the test-retest method and are obtained the coefficient of 0.80. Also Bayat in his research has been reported that the content validity of this test is reviewed by the relevant experts and is announced favorable. He is calculated the reliability of this test and has been reported the coefficient of 0.83.

3. Discussion and results
The obtained data of the research were analyzed on two levels of the descriptive statistics and the inferential statistics (test, U test, T test special to independent groups, Kolmogorov- Smirnov, Levin Whitney) by using the SPSS software.
To investigate the first hypothesis of present study was used the T test of independent groups which its results is shown in table 1.

<table>
<thead>
<tr>
<th>Group</th>
<th>Creativity variable according to the study group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>P</th>
<th>Degree of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td>Descriptive</td>
<td>73.18</td>
<td>23.15</td>
<td>3.45</td>
<td>0.001</td>
<td>236</td>
</tr>
<tr>
<td>Education</td>
<td>Traditional</td>
<td>61.14</td>
<td>19.78</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The data of table 1 show that the statistical differences between the mean of creativity score of students in two groups of descriptive evaluation (37.81 ± 23.15) has exist a significant difference (t (236), p = 0.001), this means that the creativity score in a descriptive evaluation group compare to traditional evaluation group was more significantly and as a result the second hypothesis was confirmed.

To investigate the second hypothesis since the yield data distribution of educational development test was not normal was used the U test. In table 2 is shown the results of this statistical analysis.

Table 2. The results of (descriptive evaluation/traditional evaluation) U test in order to compare the mean score of students in an educational development variable according to the study group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>p</th>
<th>U</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>development</td>
<td>Descriptive</td>
<td>8.98</td>
<td>2.15</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>7.96</td>
<td>2.28</td>
<td></td>
</tr>
</tbody>
</table>

The data of table 3 show that by using the U test of Whitney the statistical differences between the mean of educational development score of students in two groups of descriptive evaluation (8.89 ± 2.15) and the traditional evaluation (7.69 ± 2.28) was significant p -0.002, U -5998). In the other words, the average of educational development score in the descriptive evaluation group compare to traditional evaluation group was more significantly and as a result the third hypothesis was confirmed.

To investigate the first hypothesis of present study was used the t test special to independent groups. In the table 1 the obtained findings of statistical analysis is shown.

Table 3. The results of (descriptive evaluation/traditional evaluation) t test in order to compare the mean score of students in an education self-concept variable according to the study group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>t</th>
<th>P</th>
<th>Degree of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-concept</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>education</td>
<td>Descriptive</td>
<td>44.38</td>
<td>5.36</td>
<td>2.60</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td>Traditional</td>
<td>41.74</td>
<td>5.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The findings of table 3 shows that between the mean of education self-concept scores of students in two groups of descriptive evaluation (44.83 ± 5.36) and the traditional evaluation (14.47 ± 5.16) has exist a significant difference (t (236), p = 0.59), this means that the average of education self-concept score in a descriptive evaluation group compared to traditional evaluation group was more significantly and as a result the first hypothesis was confirmed.

4. Conclusion

According to the results the students under the descriptive evaluation system have more positive education self-concept compared to the students who are under the quantitative evaluation system. Therefore, the descriptive evaluation has been caused the creation of the positive education self-concept in the students. This result can be interpreted based on the positive features of descriptive evaluation. Among these features are the change of interval scale to rating and reduce of blame and the remove of pressure to earn twenty score. When the student is humiliated and blamed in a classroom continual and from parents is under pressure to earn twenty score, his attitude and opinion become negative about himself and is assessed himself incompetent and unintelligent person. In contrast, when his right works is praised and is encouraged to continue these efforts finds positive attitudes towards his ability and talent and will have more motivation to progress. For the specialists of science advice, the self-concept phenomenon is concerned of three dimensions: first, self-concept is a learning affair, second is an organized affair and third is a dynamic affair.

The findings of present research shows that the students under the descriptive evaluation system have more creativity compared to students who are under the quantitative evaluation system. Therefore, the descriptive evaluation has been caused the outbreak and training of creativity of students. In an education evaluation according to the responses of the predetermined format is negated the search spirit from the child and prevented the outbreak of creativity. New look to creativity known it education center and circuit training. The descriptive evaluation system by removing the barriers of creativity (such as: the encouragement of students to repeat, imitation, habit and relying on assumptions) of teaching-learning process have been on outbreak and training of creativity of students. According to the history and literature it can be said: when in an education environment while respecting the individual differences of learners does not exist compulsory to follow a particular pattern and to provide preset responses, gradually the brain is unbound from the restraints of imitation and starts to design and produce new ideas.

In a descriptive evaluation system the existence of variety of assessment tools, the relative freedom in how to do text assignments, the active and interactive area causes more brainstorming and to outbreak the more creativity. While in this kind of evaluation the students do not compare to each other and is welcomed the new ideas which is the resulting of lateral and divergent thinking.

Also the findings of present study shows that the students under the descriptive evaluation system compared to students who were under the quantitative evaluation system have the best educational development. Therefore, the descriptive evaluation has caused the increasing of educational development of students. In the explanation of this finding and the line researches should be refer to theoretical foundations of descriptive evaluation. According to cognitive learning theory the use of meta-cognitive learning strategies that runs in descriptive evaluation system is a voucher of deeper learning and more educational development. One of the effective factors in educational development is the atmosphere of the classroom and the psychological atmosphere of the class is also affected of the evaluation system of the class, because the evaluation system is affected on teaching and learning. Since in descriptive
evaluation, the evaluation is in the service of learning is used a variety of tools and the developmental evaluation methods and the active teaching methods and is presented to learners the metacognition, the descriptive and the corrective feedback and this affair leads to better and deeper understanding.

Among the features of descriptive evaluation is to cover the top-level objectives of cognitive, affective and psycho-motor, more profound and lasting learning because of conflicts with various learning activities and the combining of education with evaluation. Therefore, the positive education self-concept is grown in students and causes to create internal motivation for progress. The negative self-concept causes the loss of brain function, but the positive self-concept causes the increasing of efficiency of mind and the development of better solutions and more academic success. As regards the descriptive evaluation is focused on the identifying of talents, innovations, successes and the strengths of students, more growth of their education self-concept, creativity and educational development should not be unexpected. Therefore, according to the available theoretical foundations and the research findings of inside and outside of country and also the present research this result is achieved that the descriptive evaluation can be a suitable alternative for the traditional evaluation methods.

REFERENCES

Ahmadi, E. 2007. The compare of educational development and the social skills of students of descriptive evaluation plan with the students out of the plan in fourth primary grade of Tehran (the master thesis) Alameh Tabatabaee of Tehran.

Amiri, T. 2006. The evaluation of effectiveness of descriptive evaluation plan in the first, second and third primary grade and comparing it with quantitative evaluation in Chaharmahal and Bakhtiari province, academic year 2005-2006. The council for educational research of the ministry of education.


Boston, K. 2009. The concept of formative assessment, speeches in educational measurement (translated by Korosh Parand & Gholamreza Yadegarzadeh), Tehran: Navaye Mahtab publication (2002, the publication date in the original language).

Brookhart, S. 2010. The descriptive evaluation means the effective feedback (translated by Tahereh Rastegar), Tehran, publication of training herald.


Christopher Damian, D. 2010. Using descriptive feedback in an assessment as learning context for constructing the way forward. University of Melbourne, Department of Learning and Educational Development.


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