Investigation of relationship between school-based management and creativity of principals and teachers in public schools for boys at Mahmoud Abad city

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ABSTRACT

The goal of this research is investigation of relationship between school-based management and creativity of principals and teachers in public secondary school for boys at Mahmoud Abad city, the current research method is descriptive and its type is correlation. And statistical community or group of this research its number is 270 person and 140 person is selected among them, such that 40 principals is selected in the way of census and 100 teachers is selected as simple accidental way. Information gathering tool, is questionnaire that questionnaire of SBM (0.925) and creativity questionnaire (0.87) are performed after determination and affirmation and evaluating of reliability of questionnaires and it used from parametric simple regression and Pearson correlation coefficient test and ANOVA test obtained results from hypothesis tests show that all of the creativity components (fluidity flexibility, extension and innovation) have meaningful relation with SBM, and regression results show that SBM with expression factor 0.591 and Beta factor .0.555 have positive effect on creativity of principals and teachers, and are from prediction components of creativity. The researcher has suggested necessity and importance of attention to establishment of SBM for training creativity and flexibility in schools due to obtained results from research that is indication of existing strong relationship between SBM and creativity.

INTRODUCTION

Education systems during last decades of 20 the century, tended to collaborative and Decentralized patterns parallel with cultural, economic and social evolutions and developments in this period these patterns produced by environment evolutions and changing attitudes or views and society expectations, and with resort to more flexible structures, promising more cooperation of different classes of society such as parents, principals, teachers, schools’ personals and students in decision-making process and cause to effectiveness of educational systems [8]. The more complex the world that we live in it, the more need to training creative minds. For this reason, creativity matter is the most important issues of Education, due to this matter, it should be selected innovative, and creative and mighty principals and teachers for schools in order to be able with adoption effective plans and techniques, provide requirements for appearing talents and creativity of students [6]. Modern complex life, is becoming new every moment and creativity and innovation are necessity of continuity of active life, human require innovation and initiative for creation of esprit and dynamism

Until satisfy self-ambitious motivation. Human society need to evolution and innovation for survival and escaping from death. Today, the motto you will be destroy, unless you will be creative and innovative should place a head of directors in all of the organizations but responsibility of educational organizations especially education is more because education is responsible for training and education of society children. Therefore educational organizations not only are responsible for providing facilities for growth and bring up creativity and innovation and correct and oriented use from talents and abilities of individuals that is ground preparing for cultural, economic and social development in society, but also need to training and exploiting from creativity and innovation in different levels of organization for own dynamism [9]. Centralized management of education in country and lack of significant cooperation of principals, staff, parents and students in decisions relate to the way of school management and solving problems and its limitations, has been dominated on education system of country for (during) years. Aforementioned situation also has reduced the effectiveness of schools. Nowadays, then requirement or necessity of review and evolution in This system has been emphasized and affirmed.
with different methods by authorities, with the aim of lack of concentration, submission of authority, group collaboration and reinforcing morality and human relations [8]. Emphasize on necessity of making decisions related to school management method (such as budgeting, personnel affairs, educational methods and process) at own school and by individuals that are near to decision performing area than others and are awareness from its problems and delicacies, during last decade, have been attention by different administrative and scientific educational gatherings, in response to mentioned challenges and in modern view framework with the title of SBM this viewpoint provide contexts of lack of concentration (centralization), group work and cooperative decision-making and consequently more responsibility and answerability decision-making against adopted decisions [8].

Creativity concepts and definitions:

Like any theoretical and human concept, creativity definition is also based on personal and school trends and perceptions of scholars or authorities that in general seem alike. For avoiding from prolonging discussion, we present in the following section some of the definitions of famous scholars about researches and scientific source of creativity.

Torrance [21]: Creativity is sensitivity to problems, affairs, shortages and existing mistakes or errors in knowledge, guessing, forming hypothesis about this shortages evaluating and testing this guesses and hypothesis and probably correcting and retesting them and finally conclusions. Torrance, is affected by theoretical framework or structure of Guilford, believe that creativity composite of four main factors that are:

1- Fluidity: Ability to produce much idea in image frame with assumption of response and giving opinion about it.
2- Innovation: Ability to produce ideas that are Different from usual and current ideas.
3- Flexibility: Ability to produce different and diversified ideas in image framework and presenting new solutions.
4- Extension: Ability to adding details or completion imagery ideas.

Descriptive dictionary of psychology idioms:

Creative mind (thought) is a thought that its main feature is ability to putting away unnecessary hypothesis and producing noble thoughts.

Sternberg: Creativity is composition of innovation power, flexibility and sensitivity against Theories that allow learner to think about different And productive results beyond results of unreason able thought, that it's outcome will be personal satisfaction or probably others' contentment [12]

Aboutorabian know creativity as different result of encountering with problems and believe that if the thinking way of person be like others, response of problem will be the answer that others found it or can find clearly creative thought require thinking from other angles and from different window with others.

Today, in world, creativity training is one of the main factors of educational systems, having creative and innovative teachers are most important and critical in educational system because education can play important role in training creative thought and explorer and problem solver individuals due to need and dependence of society individuals to it. School can strengthen thought power and mind skills of its students such that easily can create new ideas for accessing to proper and realistic solutions. Accessing to such desired conditions require creative and thoughtful teachers in educational system. Creativity introduced as supreme need of human in his/her all aspects and dimensions of life and expressed as extensive and directed evolutions in thought and idea, such that have one ability in composition previous factors with new methods [3].

Definitions and concepts of SBM:

SBM: Davis and Associates has mentioned that school-based or cooperative decision -making at school, is a review in schools especially public schools that submit decision -making power from one central area (section) to a school for improving performance and effectiveness of that school. The goal of this process is increase of amount of interference and involvement of school in running self-management [4]. Dimensions of SBM that have the most overlapping from the view of scientists and authorities, mentioned as components of SBM in current research and also Gholam Reza Shahni [17] concluded principals know SBM as decentralization, submissions of authorities, collaboration and flexibility.

1-Decentralization: If district principals of schools have tendency to submission significant port Of responsibility and authority, then, the more decisions will be made in lower ranks of organization [7].
2- Flexibility: Logical acceptance of new ways and methods that created in education world and staying away from inappropriate resistance about these changes [19].
3- cooperation: Is a mechanism based on giving responsibility to groups or responsible individuals and involving personals that one can be confident that proper information and input presented to decision-making system [13]?
4- Authority submission: Submission of authority that is submission of part of authorities to subordinate or lower rank personals is a tool that principal access to necessary effectiveness at doing Works with help of it
In this research, it is used from above components for analysis of rate of SBM. SBM have abundant responsibility for school's teachers and principals so in an educational system decided to SBM, schools principals have capabilities and innovations and when SBM distance from centralized management, the role of supreme directors of Education changes from enforcing centralized power to group supervisors. In our country, principals used to receiving directive from education offices for making any decisions, that this method (procedure) close any way of creativity and innovation at schools [10].

SBM was effort for decentralization from organization and management and school management style and submission of authority to closes of student and definition of new roles and responsibilities and also most of the important decisions at new generation of schools have been established based on principles of administrative and structural decentralization [1]. Therefore, due to importance of creativity of teachers and principals that are the most important components of education and training student's creativity and also because centralized structure of educational system prevent from appearance of creativity in educational and training personals of schools and in additions, organizational setting and dominant conditions on school educational area are the main reasons of lack of appearance of education's creativity so importance of analysis of relationship between creativity aspects in teachers and principals with SBM that is indication of decentralized structure in schools account necessary and important. In mentioned research that is performed in public secondary schools for boys at Mahmoud Abad township in direction of exploitation of personals from proper conditions and cooperative situation of school for training their creativity, the important question was this: whether SBM with decentralized framework can provide facilities and requirements for training creativity or not? Now, due to reminded matters in regard of SBM and necessity of creativity of educational personals and their peak, principals and teachers as the most important educational human components. This question has engaged the researcher's mind that what is the relation of SBM with creativity of principals and whether SBM can act as proper context for creation of creativity and innovation of educational personals or not? We analyze this question in the view of principals and teachers of public secondary school for boys at Mahmoud Abad city (of Iran country).

In the first national conference of SBM that is held on 2001 year, knowledge and expertise in Different context introduced as main components in SBM system, in this conference, knowledge, expertise, flexibility and also providing financial sources are from important components of SBM. Parks and Koltze performed research on the number of teachers in north of MCCP on 2002 year that showed there is direct relation between teacher's expertise and school-based. In other words, schools that managed with style of school-based, had effectiveness teachers [11].

Niknami, M. et al. [16] With performing research with title of designing and evaluating Scientific model of creativity and innovation of educational principals at Tehran city, concluded that Variables such as organizational culture, condition And learning and knowledge management have direct and meaningful relation with creativity of educational principals of Tehran city [16].

Pandey [22] has done research about effective organizational factors on personals' creativity and concluded that creativity is strongly affected by organization structure, management style and rewarding system in organization. Decentralize framework, evolutionary management style, cooperation of members in activities, and presenting rewards that cause to satisfaction internal needs of individual are factors or components that effect on subordinates' creativity [22].

Weng (2007), conclude from his research that if managers and supervisors encourage creativity and Innovation of subordinates, the trust and confidence will be increase in work of subordinates and also Their faithfulness to managers. In literature, concepts Of creativity and innovation are synonymous. Oya and Weng expressed in studies about management style for SBM in Hong Kong that leadership of SBM emphasized one reforming society view in direction of economic development based on knowledge, continuous learning and attention to multiple intelligences and also creating equal opportunities of education, thought training, and creativity and innovation is students [20]. According to the contradictory results the researcher decided to investigate relationship between SBM with principals and teachers' creativity in public secondary schools of boys at Mahmoud Abad Township.

**MATERIALS AND METHODS**

In this research, it is used from quantitative research method and because in this research, it is investigated the relationship between creativity of principals and teachers in public secondary schools of boys at Mahmoud Abad city and it is used from principals and teachers view, so this investigation is a kind of surveying-correlation. Statistical community of this research include 270 person that are selected 140 person from principals and teachers of Mahmoud Abad public secondary schools of boys as a sample and among them, 40 person is selected from principal groups as census and 100 person is selected from teacher groups as accidental. Researcher investigated relationship between SBM as independent variable with different dimension of creativity as dependent variables and also prediction of creativity based on Components of SBM. The
work pattern is this research is using from scientific methods in behavioral sciences. It is used from two methods in order to investigation relationship between creativity and principals with SBM in public secondary schools of boys at Mahmoud Abad city and for gathering required information and data:

- Library method: In this research method, it is used from books, publications, internal and external magazines and monthly journals and also from information in valid and related websites for accessing to internal and external new sources.

- Field method: In addition to library studies that are done in direction of this research for accessing to research background and edition of subject literature. It used from two questionnaire for evaluation of creativity of teachers and principals (Standard questionnaire of Torrance creativity evaluation) and questionnaire of researcher for evaluation SBM in creativity questionnaire It is used from questionnaire of creativity rate evaluation of Torrance (1979) that composite of 60 question that is a designed as standard and their reliability and reliability is tested for times. In this questionnaire every question includes 3 answers. It is used from researcher questionnaire for evaluation general SBM and its four dimension (decentralization, flexibility, cooperation and authority submission).That composite of 64 questions that have five spectrum based on Likret scale. SBM questionnaire reliability is equal to 925% based on test of Cronbach's Alpha coefficients and alpha factors of different aspects of SBM are greater than 0.7, so questionnaire, reliability is approved.

In this research, since creativity predict based on aspects of SBM (Decentralization, flexibility, cooperation, submission of authority) and own SBM, and relation of creativity components consider with (fluidity, flexibility, innovation and extension). So SBM dimensions are as independent variables of research (prediction variables) and creativity is as Dependent variable of research, that we went investigate or analyze effects of independent variables on creativity. In this investigation, it is used from descriptive, statistical methods for analyzing data due to the kind of variables (centralization criteria, catered criteria and frequency tables along with related diagrams) and from parametric inference methods (for expression and definition of research hypotheses (Pierson correlation test and for expression and prediction of simple regression and multiple regression and from one directed variance analysis (ANOVA) based on statistical software SPSS 20.

Results:

Based on descriptive statistical analysis and due to above information, one can observe that among this statistical sample, 4.3% have high diploma degree, 63.6% B.A degree and 32.1% MA degree and 2.9% have age between 20 to 30 years old and 23.6 have age between 31 to 40 years old and 64.3% have age between 41 to 50 that the highest percent belong to this age interval and 9.3% have age between 51 to 60 years old. Average of sample creativity is equal to 151.4214 and since mean scores until 60 are low creativity and from 60 to 120 are medium creativity and from 120 to 180 are high creativity, so average of creativity scores show high creativity of staffs and also frequency distribution and mean of SBM sample is 195.585 that is indication of medium establishment of SBM in considered sample. For normality testing of data in both of questionnaires, it is used from Kolmogrove - Smirnove test and meaningful amount (value) is obtained from different aspects of questionnaires that in whole was greater than 0.05 so in significant level, there is no 95% power full evidences for rejecting null hypothesis and null hypothesis will be accepted. Therefore 1, data are normal. As a result, it is used from parametric tests for testing hypotheses.

Table 1: Pierson correlation between SBM and creativity and its dimensions:

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Creativity</th>
<th>Fluidity</th>
<th>Innovation</th>
<th>Flexibility</th>
<th>Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBM</td>
<td>Pearson correlation</td>
<td>769</td>
<td>554</td>
<td>474</td>
<td>696</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>000</td>
<td>000</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>140</td>
<td>140</td>
<td>140</td>
<td>140</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed).**

As it is shown in table 1, there is strong and direct correlation between SBM and creativity. There is relatively strong and direct correlation between SBM and fluidity. There is relatively strong and direct correlation between SBM and flexibility. There is strong and direct correlation between SBM and innovation. There is relatively strong and direct correlation between SBM and extension.

Table 2: Variance analysis and statistical feature of regression

<table>
<thead>
<tr>
<th>ANOVAa</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>15861.737</td>
<td>1</td>
<td>15861.737</td>
<td>199.348</td>
<td>0.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>10980.399</td>
<td>138</td>
<td>79.568</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26842.136</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: creativity b. Predictors: (Constant), school-based management
Among relation of SBM with extension is \( r = 0.614 \) and shows relatively strong correlation between this two variables. Between SBM with innovation is \( r = 0.696 \) and is indication of relatively strong correlation between variable and SBM, it is added 0.555 units to creativity. The results of this research is parallel with finding of Vafayi and ability of educational innovation and creativity. Eslami pour (1993) also expressed in flexibility is equal to \( r = 0.747 \) that indicate relatively strong correlation between this two variable and relation and personals consider problems exactly and attention to this matters lead to systematic thought of personals.

Between dependent variable and prediction variables and since value of error independencies in Watson Durbin test is equal to 1.755 and since the requirement of error independence for using Regression test are between 1.5 to 2.5, so condition of error independencies is established. Therefore, Regression is valid. Hence, it is used from simple linear regression for prediction of dependence variable (creativity) based on independent variable (SBM). In above table, \( R^2 \) (R square) is indication of expression dependent variable (creativity) from variance of independent variable of prediction in SBM.

Linear equation of Regression is written as follows based on obtained numbers and values:

\[
42.794 + (0.555*SBM) = \text{creativity}
\]

Based on above table, it is obtained significant levels for independent variable of SBM, smaller than 0.05; so these factors have meaningful effect on Regression equation. In other words, correlation relationship between SBM and creativity is meaningful. Also it is obtained significant level for Regression constant smaller than 0.05 that shows Regression constant also has significant effect on Regression equation. In other words, increasing SBM, creativity also increase. Beta factor shows that with adding one unit to SBM it is added to creativity amount of 0.555 unite.

**Discussion and conclusion:**

The research results indicate that among 140 person of research sample, individuals with BA degree 63.6% are highest percent and in distribution of age groups, age group with 31 to 40 years old with 64.3% involve highest frequency of sample and creativity mean of sample is equal to 151.4214 that is indication of high creativity of teachers of sample and average of SBM that is equal to 195.585 indicate that SBM is medium in secondary school for boys in Mahmoud Abad city and it amount effect on creativity of personals. Investigation relationship between SBM with creativity shows positive and strong correlation with amount equal to \( r = 0.769 \), between SBM with fluidity is \( r = 0.554 \) that is indication of relatively strong correlation and between SBM with flexibility is equal to \( r = 0.747 \) that indicate relatively strong correlation between this two variable and relation between SBM with innovation is \( r = 0.696 \) and is indication of relatively strong correlation between variable and relation of SBM with extension is \( r = 0.614 \) and shows relatively strong correlation between this two variables among them, correlation between SBM and innovation have highest percent. Also, in prediction of creativity based on SBM shows that approximately 59.1% from variance of dependent variable of creativity express from variance of independent variable of SBM. B factor or coefficient indicates that with adding one unit to SBM, it is added 0.555 units to creativity. The results of this research is parallel with finding of Vafayi and Eslami pour (1993). Vafayi (1997) obtained significant relation between cooperation management style and ability of educational innovation and creativity. Eslami pour (1993) also expressed in his research results that performing cooperative management lead to increase of creativity of work force and this is parallel with finding of Manavi pour et al. (2010). Fluidity scores in organizational learning of creative manager personals is equal with 1.727 and organizational learning of uncreative manager personals is equal with 1.078, that there is significant difference between organization learning of creative manager personals and organizational learning of uncreative manager personals statistically. This findings are parallel with research results of Davoudi pour et al. (2008) that based on the more the rate of establishment SBM, the more flexibility and independency of personals. Finding of rice (2006), Esmi (2006), Eslami pour (1993), Amabil (1998) are parallel such that cooperative management is one of the most important predictive components and effective on personals creativity. The high rate of SBM cause to increasing extension and attention of personals to details of problem and personals consider problems exactly and attention to this matters lead to systematic thought of personals.

**Table 3:** Expression factor and Watson Durbin test

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.769a</td>
<td>.591</td>
<td>.588</td>
<td>.92010</td>
<td>1.755</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), SBM

b. Dependent Variable: Creativity

**Table 4:** Components inside equation for prediction of creativity variable

<table>
<thead>
<tr>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>42.794</td>
<td>7.730</td>
<td>5.536</td>
<td>000</td>
</tr>
<tr>
<td>SBM</td>
<td>555</td>
<td>0.39</td>
<td>769</td>
<td>14.119</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Creativity

Since it is realized that correlation between SBM and creativity intensity of strong and direct correlation, so getting meaningful of F in above table (\( F = 199.348, dF = 1.138, p = 0.000 < 0.05 \)) shows that there is linear relation between dependent variable and prediction variables and since value of error independencies in Watson Durbin test is equal to 1.755 and since the requirement of error independence for using Regression test are between 1.5 to 2.5, so condition of error independencies is established. Therefore, Regression is valid. Hence, it is used from simple linear regression for prediction of dependence variable (creativity) based on independent variable (SBM). In above table, \( R^2 \) (R square) is indication of expression dependent variable based on prediction variable. Value of \( R^2 = 0.591 \) shows that about 59.1 from variance of dependent variable of prediction in SBM. Linear equation of Regression is written as follows based on obtained numbers and values:

\[
42.794 + (0.555*SBM) = \text{creativity}
\]

Based on above table, it is obtained significant levels for independent variable of SBM, smaller than 0.05; so these factors have meaningful effect on Regression equation. In other words, correlation relationship between SBM and creativity is meaningful. Also it is obtained significant level for Regression constant smaller than 0.05 that shows Regression constant also has significant effect on Regression equation. B factor (coefficient) also obtained for positive SBM that indicate relation of SBM is direct with creativity. In other words, increasing SBM, creativity also increase. Beta factor shows that with adding one unit to SBM it is added to creativity amount of 0.555 unite.
The high rate of SBM, the high flexibility of personals, In fact, cooperative conditions at school is one of the important components in creating flexibility and idea talents in personals. In fact, increasing rate of establishment SBM due to structure and cooperative culture and lack of centralization in decision – making cause to encouragement of personals in producing multiple(diversified) ideas and presenting different solutions in order for cooperation decision – making and school environment turn in to creative environment and producing creative ideas.

REFERENCES