



**International Journal of Biology, Pharmacy
and Allied Sciences (IJBPAS)**

'A Bridge Between Laboratory and Reader'

www.ijbpas.com

**PRESENT A MODEL FOR IDENTIFYING EDUCATIONAL ADMINISTRATION
ROLE IN THE DEVELOPMENT OF CREATIVITY AND CRITICAL THINKING
FOR A SECOND HIGH SCHOOL STUDENTS IN TEHRAN CITY**

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ABSTRACT

The purpose of this study is Present a model for identifying educational administration role in the development of creativity and critical thinking for a second high school students in Tehran city. The method of this research is mixed in which a combination of qualitative and quantitative methods are used. The Statistical society of this study consists of all the public high schools teachers in Tehran city that their total number is 9,056 in the academic year 2014-2015. The number of selected samples at interview step is consists of 17 persons to reach theoretical saturation and 355 persons on the quantitative step with using kerches and Morgan schedule, that samples interviewed were selected Purposeful and in the quantitative step of this study, were selected by cluster sampling. Primary data have been collected by using semi-structured questionnaires and researcher made questionnaires. The validity and reliability of the questionnaire was approved. For the validity of mean (tool) from structures validity used exploratory factor analysis with weight factor 71.95 and for examination of Reliability was used Cronbach's Alpha, That amount is equal to 91/0. For current study was used Descriptive statistical methods(Frequency table, mean, Kurtosis and skewness) and for inferential statistics(exploratory factorial analysis, t-test). At the end with respect to the given assumptions of factorial analysis, the Equity of questions, Percentage of variance explained by each factor 5 of the 31 items were extracted as follows, which Administrators can be affective through that to developing students' creativity and critical thinking: 1-Teaching creativity and critical thinking in students. 2-Creative and critical education teaching methods

to teachers.3-Motivation in Students.4 -5- make a Creative and critical environment in the school environment.

Keywords: Creativity, critical thinking, educational administration

INTRODUCTION

Featuring essential humanity and his power is thought. human throughout his life. Thus all human progress depends on the success and fruitful ideas, his dynamic and effective [26], During the study of critical and creative thinking have never been the subject of how we wanted our attention not only of the issues presented as it is expressed exactly as, and without any assessment and review of Creativity Delivery We [41], Unfortunately, the educational system of our society and nurturing creative people and critic, is the idea and instead foster a spirit of creativity, innovation, critical and creative minds focus more on the memories [14], Fortunately, in recent years the emphasis of educational psychologists high school students have criticized the transfer of knowledge and information skills and teachers to their of thinking in the order learners [34], Some theorists, thinking skills in the broad context of hierarchical classification that in the meantime, Swartz and Parker (1994) in his classification, creative thinking and critical thinking ability of nuclear knowledge and have introduced them to the center of decision-making and

problem-solving [12], Jean Piaget, the fundamental purpose of education is to train people who are capable of doing new things and just what other generations have done, repeat not, the people who are creative, inventive and have explorer. The second goal of education is the cultivation of the mind that he has to accept whatever is offered to them, it can be measured criticizing and accuracy of the [15], balin discriminate between them is impossible to know precisely because he believes the notion of good quality measures and also to produce a new and novel. the difference between the critical thinking and creative thinking in them, but not in their and, therefore, programs and activities of schools must reflect the fact that the promotion of each one of them will be another promotion. Education experts in critical thinking in terms of scale, and the evaluation of the cases and creative thinking from the perspective of the production of new and creative thinking on new production and critical thinking on documentary judgment. Creative thinking has a special character and the desire to explore new issues departs [35], Harris (1998, cited in Glaser And Aschvarz 2007) differences Between

Thinking Critical And
Thinking Creative The At This Who
knows Thinking Critical Thinking
Analytical, Too
Oriented, Vertical, Concentrated, Objectiv
e, Theological And Linear It is. If the
The Thinking
Creative Thinking Generator, Divergent,
Marginal, Scattered, Mental, Video And P
articipatory It
is . Smith, (1992). ,Thinking Creative And
Thinking Critical The So much Different
Knows. Although Mazynv et
al. [18],Critical and creative thinking as a
dimension, but that these two aspects of
the same relationship, both ways are
different from each other. Critical thinking
is reasonable thinking that is focused on
deciding what to criticize, judge and find
flaws in them. The aim of this work is to
critically assess the suitability of the
method. The usual way of thinking is to do
it while thinking of creative thinking and
innovative way to find a unique way. The
major activities such as problem solving,
both kinds of thinking are important
roles. First, we analyze the problems and
solutions to the problems our food then
select and implement the right solution and
run the effectiveness of the solution to
assess. One of the factors affecting the
development of students' creativity and
critical thinking is a manager and

leader. Gill [17],argues that creative
people need leaders who are critical and
creative. For him, the creative director, the
necessity of bringing creative staff,
teachers and students considered. His
emphasis on the part of members of the
organization, and says that the managerial
staff and their students' knowledge,
information and ideas are not new, mind
and brings them prowling grounds for
creativity and critical thinking to provide
.Managers who wish to colleagues and
students grow and succeed in your dreams
and always thinking of the needs, feelings
and desires of individual attention, they
provide potential areas of occurrence. In
addition to questioning the executives,
because others are thinking and doing
something about those kind of foresight,
vision and purpose that will create a
dynamic and self motivated individuals
and organizations, and schools are
[26],Creative director at an educational
facility should be given to the role and
participation of students, staff and teachers
in school administration with a spirit of
flexibility, humility and open-minded, try
the first stage, staff and the school itself
confidence to strengthen .In particular, the
diversity of ideas, new thoughts and new
initiatives in every field and on every
agenda of every one of them would be a
good subject for breeding it is

tyranny. Creative director has tried without providing a model for people, it will lead to new approaches to choose. In this regard, it is important to strengthen the spirit of initiative and self-esteem among students and staff that the manager should consider training properly. Matt Sfanh impact on our school administrators of their role in the development of creativity and critical thinking for students neglect their own work and only to the official.

Literature:

Unfortunately, a survey of school administrators in the development of creativity and critical thinking there was no research to show that expresses the frequency of creativity and critical thinking can provide these circumstances, and the manager influence the factors effect back. Research in this area will be discussed below. Falah nezhad [14], found that teachers use modern teaching methods, students provide conditions fostering creativity. Pirkhaefi [31], showed that increasing the level of meta-cognitive components of creativity in education Creativity is trained students. Sharifi and davari (2009), the average performance of students who were trained with content and creative ways to significantly higher than the average performance of students who have been trained by the content of

common methods, evaluated. Hashemian Nezhad (2001) Skills To The description For Thinking Critical At View Taken The 1: Question 2: Analysis 3: Assessment, 4: Relationship Give 5: argues, 6: Organizing Concepts Scientific About 7 Use Vocabulary Critical 8: Meta Recognition For Thinking Critical. Jahani (2001) Education Thinking Critical Exclusively from Way Research Process Possible Knows.

Ali Poor[7], States That The content Book Of Education Social time Guidance None One Of Skill Of Thinking Critical (Analysis, Composition, Evaluation, Adjudication And Sum Category) See Not breeding The. Renzulli [32], in a study of factors affecting foster the creativity of three teachers, students and curriculum knows. Thus, the most important component of fostering creativity in the school knows. Gill (2006) one of the key factors in fostering creativity in students' attitude to the problem creativity of teachers and students understand the creative. They believe that most students are creative, less obedient and less coordination with the crowd and their behavior is unpredictable, so some teachers think that they are creating trouble. These included five principles regarding the questions of the students, the

students' attention to fantasy, explained it to the students that their opinions are valued, for their work to do, and do without the evaluation and implementation evaluation causes and consequences by teachers, students consider important factors in fostering creativity. Amabile [8], in their study, teacher, role model and openly express their feelings, such as love, joy, curiosity in providing a positive environment in the classroom, having intimate relationships and with love and respect for the rule of human relations in the classroom course, giving students the opportunity and autonomy to nurture the creativity of the students is the most important factor. Gardner [16], has shown that mentors, teachers and mentors have played a very important role in motivating creative people. Eric [26], Components of fostering creativity in students, teachers, curriculum content, family, teaching methods, learning environment and the students noted. Adair [1], the most important factor in fostering creativity in students, especially in elementary school learning environment is suitable for the family and relationships. Albert [6], in a study of students' intrinsic motivation factor is creativity. His research showed that people value creative work, along with the inner motivations. When people are self-motivated, interested in a position that

requires use of their creativity and abilities, and will seek out risk free. Eric [26], found that creative people, share common characteristics, such as interest in experimentation, confidence, independence, flexibility, willingness to take risks, courage and personal courage, initiative, perseverance, curiosity, humor, attitude For complex tasks, motivation, sense of security and joy in their work. Thus, the most important factor is one's own creativity. Sternberg [37], found that students with innovative features, such as high levels of achievement motivation, curiosity, too, much like the arrangement of things, the ability of self-expression and character, perseverance and discipline at work, independence, critical thinking motivation, enthusiasm and feeling great, beautiful friendship, love of art, high sensitivity towards social issues, intuitive thinking and the ability to influence other people. Egan [13], the main constituent elements of creativity, personality factors such as the position of the internal control and intrinsic motivation of the students knows and elsewhere, human resource development, Bazkhvrdgyry, leadership, teaching methods of teachers also has described the creative . findings Kandmyr and Gyor [21], on the use of creative problem solving scenarios show that the training of teachers in mathematics

education by increasing creative problem solving skills in the students. Baer [9], Long-term effects of training in creative problem solving and examined the results of more efficient methods of problem solving creativity of students to be achieved. Patamay (2006) showed that training significantly improved in terms of creativity, innovation and cognitive component in the students. Amabile [8], in social psychological theory of creativity focuses on the role of intrinsic motivation in creativity than others. He believes that creativity in the form of a hybrid model in three dimensions is essential subject skills, creative skills and the motivation task. Mabyll looks after the creative impulse that is formed under the influence of environmental factors. The relationship between creativity and motivation with the "principle of intrinsic motivation," he explained. The internal excitation leads to creativity. Research Rushton and Larkin [33], suggests that external incentives such as reduced motivation and creativity can be assessed. While intrinsic motivation has a significant effect on creativity. "Torrance" in addition to her relationship with the creative work and the kids got older, the relationship between creativity and an environment that influence their creativity. Hsu-Chan[19], of the existing learning methods,

techniques, and methods foster creativity and enable students to engage and get to know thinking of them very good to learn is to the students and to enjoy The improvement in mental abilities, problem solving and creativity to get them. Tanjitanont, [38], research With Name "Effect Application Of Technique Bdyh DP Upon English creative writing skills "in Thailand has done. The purpose of this study was to compare Nvshtarkhlaq English skills before and after processing techniques using Bdyh Fnyrajamangala the University. The findings revealed that post-test scores of students in 19 percent more than the ability English and creative writing from making further use of the technique of pre-test scores were Bdyh. Bogner[11], in their study showed that the use of creative techniques and other factors such as time teaching the techniques of teaching, of their previous experiences students in creative activities and creative attitude of teachers to foster students' creativity is impressive. Hong and Chngygvv (2006) result Creative teaching strategies and learners who are motivated creative planning skills significantly affected.

Pirkhaefi [31], Outcome Took That Creativity, To Intensity Of Structure Organization, style Leadership And System Reward At

Organization Affected Itis .Structure Dece ntralized, Style Leadership Transformative , Partnership Members ofthe Activities, Gr ant Rewards That To Satisfy Needs Interna l Leadpersons AlsoFactors Itis That Upon Creativity Subordinates Effective Itis . The Martin AndTrablanch [24],With Performa nce Research Of Multiple, Outcome Recei vedThe Property orvalues Structure Organi c Cause Development Creativity AndInnov ation Are Flexibility Accountability,freedo m And Job Team And Coordinator It is . World [43],Bench For Thinking Identify critical The Itis Inquiry,the definitionProble m Testing Reasons Anddocuments, Analys is And Analysis Assumption And,Distance Jump Of EmotionalReasoning And Emoti on Abstinence Prior SimpleAttention To O therinterpretations And Tolerance At Equa l Ambiguity The Knows)To Transportatio n The Adsite[2],Paskarl(1999) Show The Knowl edge Students That At University To Time YearPresence Had Score Higher Ratio To Team According Knowledge Students The University Present Were not At Thinking Critical Respectively. Agnes and Mary [3], Barriers Under The Head Way Facilitate C ritical Thinking AtNurture Nurses At Africa Nort hern Identification They Lack of Knowled

geTeachers, The use of Procedure Education And Assessment T hat Thinking CriticalLearners Facilitate Do not Them; Attitude Of Negative Teachers To Shift And resistance They At Equal Change, Process Selection Inappropriate BackgroundEducat ive Weak That Thinking Critical Knowled ge Students To ease Do not Gives . ;Community Vulnerability Inad equate; Culture And Incompetence Of Edu cationalLanguage . Tsui, and Gao [40],show The That Procedure Seminar At Progress Critical Thinking Effective It is .based on the foregoing, the main objective of this study was to develop an appropriate response to the following questions:

- 1.) Factors that educational administrators in the development of creativity and critical thinking in high school students are involved, what are they?
- 2.) Each of management factors affecting foster creativity and critical thinking criteria is composed of what?
- 3) Is the current situation and the desired role of managers in fostering creativity and critical thinking of students there?

MATERIALS AND METHODS

In this study, a combination of qualitative and quantitative methods used and the

research methodology combines the survey was conducted. The data analysis component of the study is a descriptive-analytic study.

The population of this study included all high school teachers in public high school in Tehran from 2013 to 2014 to 9,056 people. Depending on the type of sample selection strategy using two types of purposive sampling in qualitative research stage cluster random sampling in the qualitative research was. The number of samples is 355. To collect the required data through semi-structured interviews and questionnaires of the package has been collected. To identify the role of Training Manager in the development of creativity and critical thinking for students in first through semi-structured interviews were used in the basis of the interviews was developed questionnaire. The questionnaire contains 31 items and is the

fifth component. Reliability, measured by Cronbach's alpha, which amount was equal to 91/0. To determine the validity of the test, known as factor analysis using spss software is used.

RESULTS

For data analysis, descriptive statistics to characterize and determine the number of data groups and to assess the validity of factor analysis of the main factors and the questionnaire for simple structure extracted the analysis used varimax rotation.

Results Descriptive statistics show that the majority of women with this 72/0, hired by 65/0, 63/0 and 32/0 of them have a master's degree with work experience between 5 to 10 years.

Other data for statistical indicators of teachers' scores on components of creativity and thinking Antqaday in Table 1 are listed.

Table 1: Summary of statistical indicators of scores of teachers in educational management in the development of creative thinking and critical thinking (N = 355)

Changing	Mean	Standard deviation	Tilt	Elongation
Creativity and Critical Thinking Training	38.31	3.36	.26	1.07-
Creative and critical education teaching methods	27.59	2.65	.27	0.75-
Critical and creative learning environment	33.23	1.75	.16	.26
Motivation	45.18	2.88	.56	.05
Good human relations	28.76	22.2	0.20-	1.00-

Factor analysis of the questionnaire To run a factor analysis of principal component analysis method, in order to ensure the adequacy of sampling and data correlation matrix are not zero in the

results kmo Bartlett's test was used to view the data contained in the table, it can be concluded that the implementation of factor analysis is justified.

Table (2). Kmo sizes Bartlett test results

Bartlett test		
Kmo	Bartlett	sig
749 /.	2850/053	P = 0/001

This assessment tool to determine which of several significant factor is saturated, the following three criteria were considered Qrra: 1) the value; 2) the variance of the agent to determine by, 3)

The value of Chart for rotated. The specifications for a set of 31 items in the table. . . Is shown. As is evident in Table 5, with 71.95% of the total variance was determined.

Table 3: Characteristics of the final factor analysis for effective managerial factors in the development of creativity and critical thinking

Items	Equity	Percentage of variance explained by each item	Percentage of variance explained quite	Items	Equity	Percentage of variance explained by each item	Cumulative percentage of variance explained
1	6/314	20:37	20.372	17	0.361	1. 167	93.202
2	5.421	17.489	37.861	18	0.332	1.073	94.275
3	4.264	13.756	51.617	19	0.305	0.984	95.259
4	3.998	12.900	64.517	20	0.266	0.861	96.120
5	2.039	6.578	71.095	21	0.234	0.755	96.875
6	0.775	2 . 501	73.596	22	0.213	0.689	97.564
7	0.767	2. 4 76	76.072	23	0.144	0.466	98.030
8	0.729	2. 352	78.424	24	0.119	0.385	98. 415
9	0.728	2. 35	80.774	25	0.113	0.367	98. 782
10	0.685	2. 21	82.984	26	0.108	0.3 5 0	99.132
11	0.635	2 . 0 50	85.034	27	0.097	0.316	99.448
12	0.484	1. 5 62	86.596	28	0.070	0.226	99.674
13	0.466	1. 5 06	88.102	29	0.037	0. 121	99.795
14	0.433	1. 399	89.501	30	0.032	0.1 0 4	99.899
15	0.401	1. 2 94	90.795	31	0.031	0.1 01	100
16	0.384	1. 2 40	92.035				

The final solution (after rotation)

Rotated factor matrix and factor loadings undetected because the structure does not provide, as stated earlier, the decision was taken, based on new methods of using

varimax rotation axis to the transfer of The method is relatively easy to scale. Varimax rotated factor matrix of the data, shown in the table below.

Table (4). After varimax rotation factor matrix items

Question	Factor 1	Question	Factor 2	Question	Factor 3	Question	Factor 4	Question	Factor 5
21	64/0	9	62/0	4	60/0	12	60/0	3	64/0
2	59/0	10	61/0	25	55/0	22	57/0	8	63/0
14	58/0	13	57/0	17	54/0	26	55/0	31	59/0
5	55/0	15	56/0	16	51/0	20	53/0	30	51/0
7	54/0	27	52/0			23	51/0	19	54/0
18	53/0	30	50/0			31	50/0	24	53/0
29	51/0							28	50/0
1	50/0								

Based on the analysis performed, the 5 factors, the criteria for defining and naming such factors were extracted:

A) the nature and size of the operating parameters extracted from them, has the largest share;

B) Check the glossary of terms, in order to observe the prospects and implications of Mahytf variables;

C) theories and the results of previous studies

According to the above criterion, five factors were named as follows:

Factor One: Questions 21, 2, 14, 5, 7, 18, 29 and 1 (teaching creativity and critical thinking).

Second, questions 9, 10, 13, 15, 27 and 30 (education, teaching methods, creative and critical).

The third factor: 4, 25, 17 and 16 (critical and creative learning environment)

The fourth factor: 12, 22, 26, 20, 23 and 31 (motivation of students)

The fifth factor: 3, 8, 31, 30, 19, 24 and 28 (good human relations in the school environment).

CONCLUSION

The findings of this study suggest that the managers of teaching creativity and critical thinking through 5 students, teacher training, teaching methods, creative and critical, creative and critical create a learning environment that, students, and the creation of human relationships. Good motivation school environment may

underlie the development of creativity and critical thinking in their students.

The findings were consistent with research Fallah (2008), Pirkhaefi et al (2009), a noble and Arbitration (2009), Hashemian Nezhad (2001), Abbas (2001), Alipur (2004), Renzoly (1999), Amabile (1990), Gardner (2002), Gatzels and Jackson (2010), Adair (1995), Eric (2005), Sternberg (2003), Albert (2005), Egan (2005), Kandmyr and Gyor (2009), Patamay (2006), Rushton and Larkin (2001), Hsvchnkyv (2006), Tanjytanvnt (2011), Bogna and Aybrakvyj (2009), Hong and Chngygvv (2006), Martin And Trablanch (2003), Paskarl (1999), Ajns and Mary (2005), Tsyv and Gaav (2007) and Aynaby And Sheikh (2007).

Each component consists of 5 separate indicators are as follows.

First, teaching creativity and critical thinking in students. Myers teaching creativity and critical thinking education review and critique drag Problems and problem-solving mind enjoying the ability to objectively analyze data is given (Myers, quoted by Abel, 1374).

- 1.) Self-control training to students.
- 2.) Teach students how to learn.
- 3) Providing appropriate learning content to students' daily experiences.

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-
- 4) Reinforce the students' self-criticism.
 - 5) And assessment of students
 - 6) Enriching educational content to students.
 - 7) Teaching students the flexibility of the various issues
 - 14) Determine the proper environment and adequate learning environment.
 - 15) Providing various facilities at the school.
 - 16) Providing new educational technologies in schools.
 - 17) Encourage teachers to force students to work in groups.

Second: teaching creative and critical approaches to teacher education.

The use of active learning teaching methods that lead to the development of creative and critical abilities in students has been expanded to your vision, and the analysis of contents, the Scientific Review and ability to solve problems and increase their creativity and initiative (Landry [1] 2001).

- 8.) Presentational skills training and courses to teachers.
- 9) Training teachers to teach writing patterns.
- 10) Assess how teachers teach.
- 11) Training for teachers in dealing with students with emotional relationships.
- 12) Teachers in their chosen field of expertise in the field of education.

The third factor: critical and creative learning environment. Creating an environment supportive social and physical environment of stirring, the students instead of storing scientific facts with the problems encountered in real life crisis. (Ibid.).

- 13) Providing an environment interesting and attractive learning environment.

- 18) Appropriate psychological atmosphere in the educational environment.

The fourth factor: the students' motivation. Motivation is the willingness to do so depends on a person's ability to realize the need to secure. Motivation can be defined in terms of actual behavior.

- 19) Efforts to strengthen cross-study class.
- 20) Trying to raise self-esteem.
- 21) Efforts to increase the power of decision-making at the school.
- 22) Efforts to strengthen the confidence of students.
- 23) Establish positive relationships with school students.
- 24) Creative and critical thinking for students trying to learn.
- 25) Create curiosity in students.
- 26) Reward offered for new ideas.

The fifth factor: human relationships ideal learning environment.

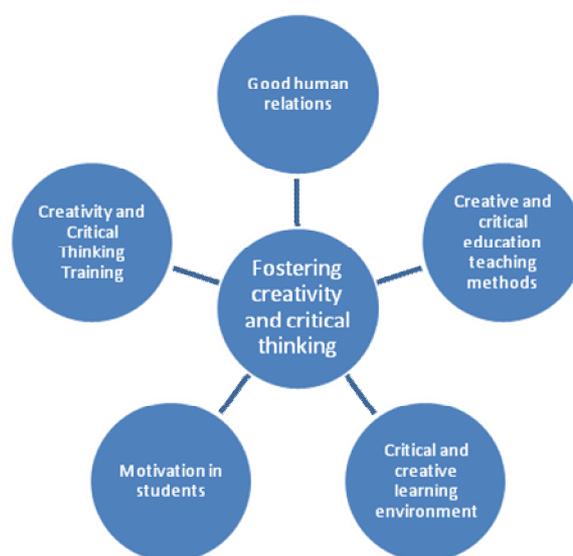
The process of establishing, maintaining and expanding bilateral relations between members of a social system targeted dynamic (school) that a rational, social and psychological needs of the individual and the group,

leading to understanding, satisfaction and mutual benefit and to create contexts and facilitate growth, motivation and educational organizations to achieve goals .

- 27) Create a democratic space in the school.
- 28) Good human relations in the teaching environment.

- 29) Involving students in academic and non-academic activities.
- 30) Conducted discussions with students.
- 31) Establish the school offers.

According to the above patterns proper role of educational leaders in the development of creativity in the city are high school students.



At the end of the stated components and parameters derived from the present study constitutes a valid and reliable instrument for measuring the educational administrators in the development of creativity and of critical thinking for high school students, be deemed to be useful.

Given these factors, it is hoped the move towards public education, to nurture creative students, clarify. It is suggested that a broader scale and with different themes, and broader widely implemented.

The results of this study can opens the door to administrators, teachers and

students will be expert to promote creativity and critical thinking. In other words, this study is important in two aspects: First, can the development of the theory of knowledge to the development of creativity and critical thinking in high school students and the director of the growth and development of training questions acceptable Theoretically, it is important to offer. Secondly, it is hoped that understanding and ways of fostering creativity and critical thinking so students recognize that it is also important in terms of practical, effective steps taken.

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