The Functions of Elementary School Teachers of Mashhad^{1*} City in Developing Students' Creativity

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Abstract

This study with the aim identifying the teachers' functions in developing creativity among the students of the elementary schools located on district one of Mashhad was done. On the basis of the simple random sampling method in 20 schools from the whole 42 schools of this district was chosen and from any school five teachers totalling 100 teachers were interviewed. The collected data indicate explicitly that the teachers pay little attention to developing students' creativity or they neglect this matter completely. The teachers of this district presented an incomplete definition from creativity and some of them were not much familiar with this concept. They also have not much knowledge about the methods and principles of developing students' creativity.

With regard to the fact that most of the teachers consider availability of facilities and holding scientific expeditions as the most significant factors in developing creativity, it is an important point that although existence of facilities and holding scientific expeditions can be considered as significant factors in developing creativity, but, they pay little attention to the important role they can play in providing rich, safe, healthy and desirable environment for the students so that they can express their ideas and manifest their genius without any worry and in full mental tranquility.

In general, the finding of the research shows that although our country's centralized system of education has restricted the selection opportunities and freedom of action for the principals, teachers and students as a result of which many obstacles are created in developing students' creativity, however, if the principals and teachers become acquainted to the concept of creativity and its development methods through in-service workshops and the importance of matter is revealed for them, in the same centralized system, there are also many opportunities which may be used optimally for developing the students' creativity.

Introduction

The increasing development of human's knowledge and information along with occurring numerous and rapid changes as well as rising inhomogeneous issues and modern technologies have made the need for creativity and innovation a necessity.

Undoubtedly, wisdom and thinking is a divine grace that has been gifted to human beings. Wisdom and thinking have caused the dominance of human beings over other creatures and has prepared the ground for their dynamism and evolution. One of the most complicated and outstanding manifestations of human thought is creative thinking to which the behaviourists have paid special attention. The researchers believe that creativity will determine the fate of the world (Torrance, 1989). In other words, creativity is one of the most exciting and complicated elements of human mind that is considered as the cause of human beings' pride and sublimity in such a way that the thinkers consider paying attention to it as the cause of the survival of a community and no paying attention to it as the cause of a community.

The dependence of the accelerating changes in science, industry and technology to creative thinking has caused many of organizations concentrate their efforts on employing and nurturing creativity.

Among these, education organization of any society is one of the most important environments that can prepare the necessary ground for developing the students' creativity through creating the appropriate conditions and designing useful approaches. Education organization may present procedures that cause creation of ideas and creativity among the students. Undoubtedly, the teachers and principals of schools are responsible for doing a part of this important task. They can flourish and develop the students' creativity through creating opportunities for exploratory learning and thinking games, promoting the motivation for reading and making the environment suitable for achieving these objectives.

In Iranian community, although there are many talented individuals, the rate of development of the students' creativity is in the lowest level due to not benefiting from rich plans and the centralization of education system as well as some other unknown factors. While in developing society of Iran, paying attention to these problems plays a vital role in the community because for achieving social, economical, cultural and instructional development we need to have talented and creative people. Although the capacity of creative thinking has been gifted to human beings, but its emergence requires creating appropriate circumstances and making the educational environment rich.

Considering the importance of the influence of teachers and principals in creating creativity among students, in the present study, it is tried to become aware of their function in developing the students' creativity and to analyze and interpret it. Such an attempt may provide important information for the managers and planners to make policy plan and compile textbooks.

Background

"Perhaps the earliest policy statement on creativity was in the 1933 Hadow Report (GBBECC, 1933) which recommended appropriate practical and cognitive provision for children from the nursery through to 7_, within the context of a child-focused rationale of the education of young children. It named imaginative activity and thinking as important (though tied it closely to reality rather than the realms of fancy), and also noted the significance of offering children contexts for self-expression. The Hadow Report provided an important precursor to the Plowden Report (CACE, 1967), and together they can be seen as representing the first 'wave' of policy recommendations and activity in practice in fostering creativity with early years children. This first wave linked creativity to a particular, child-centred, discovery-based pedagogical approach and also to the arts. It not only had a major general influence on the broad curriculum for this age range, it also crystallised thinking about creativity in education for the generation which followed it. As well as drawing on the Hadow Report, it also drew on a large body of so-called liberal thinking on the education of children." (CRAFT, 2003, p 144)

"Creativity involves the ability to offer new perspectives, generate novel and meaningful ideas, raise new questions, and come up with solutions to ill-defined problems" (Sternberg & Lubart, 1999 from Beghetto, 2007, 1)

"Creativity is ability to generate original ideas and solve problems appropriate to the contexts"

a definition that echoes both Guilford's (1950) idea of originality as a factor of creativity and Amabile's (1983) idea of appropriateness".(Forrester & Hui, 2007, 30)

"Creativity is viewed as 'students acquiring an identity and mastery of skills making him or her think original ideas and implement them in an entrepreneurial manner" (WELLE-STRAND & TJELDVOLL, 2003, 352).

"Classroom discussions provide an ideal forum for students to develop their creative thinking skills. Indeed, teachers can support students' creative thinking by encouraging and rewarding

students' novel ideas, unique perspectives, and creative connections (Sternberg & Grigorenko, 2004). For instance, during a discussion of how to use the school library to gather research for a science project, a teacher could actively pursue rather than dismiss a student's speculation that school libraries will be obsolete 10 years from now. Similarly, a teacher might attempt to cultivate, rather than quickly refocus, a conversation amongst students regarding an unexpected connection made between an historical event and the theme of a highly popular, futuristic video" game. (Beghetto, 2007, 1)

"However, if teachers place too much emphasis on relevance—stressing the importance of demonstrating one's competence and avoiding mistakes—students may be too fearful to share novel ideas". (pp, 1)

As Nickerson (1999) has observed, Timidity is not conducive to creativity. Fear is. . . a major reason why children hesitate to express their ideas, especially perhaps unconventional ones. . . Fear of failure, fear of exposing one's limitations, and fear of ridicule are powerful deterrents to creative thinking". (pp. 2)

"Factors of successful creative instruction include personality traits, family factors, learning and education experiences, belief in education, devotion to education, motivations, environment of organization, and so on. Among these factors, belief in education, devotion to education and motivations are most important. This study also confirms that creativity can be taught. The strategies of creative instructions include student- centred activities, multimedia assistance, class management, connection of teaching contents and real life, open questions and encouragement to creative thinking. The intersection of creativity components (domain-relevant skills, creativityrelevant processes and intrinsic task motivation) should be emphasized towards enhancing students' creativity. There are two suggestions for the development of creative instructors. First, creative instructions should begin with teacher-training programs in colleges. Student teachers should be equipped with the knowledge and strategies of creative instructions, while stirring their motivations. Needless to say, teachers of training programs should also have profound knowledge of creative instructions, and the programs must provide an environment for the development of creativity. Second, schools and bureaus of education should hold workshops of creative instructions, inviting experienced creative instructors, professionals, etc., to share their experiences, ways of developing creativity, and improving their teaching strategies. By joining workshops of creativity development teachers will be instilled with more creative thinking and will gain the momentum to accommodate the changed approach to education" (Horng et al, 2005. 352-358).

"There are many suggestions in the literature as to how to develop creative abilities from childhood to adulthood in our P–16 schools (e.g., Davis & Rimm, 1985; Guilford, 1967b; Karnes et al., 1961; Olmo, 1977; Parnes & Noller, 1972; Renzulli, 1992; Sternberg&Lubart, 1991; Torrance, 1972; Williams, 1969). For example, Guilford (1967b) and Torrance (1963) observed that creative thinking abilities could be developed through direct instruction. Karnes et al. (1961) suggested that educational programs should be organized flexibly to provide better services, such as enrichment programs, to students. Teaching techniques that stimulate both convergent and divergent thinking are important for stimulating creative thinking and are more challenging to creative students (Karnes et al., 1961). Individual assignments based on problem solving and problem finding also would stimulate creativity (e.g., Davis & Rimm, 1985; Karnes et al., 1961; Subotnik, 1988). Teachers who are amenable to change and who model divergent thinking themselves seem the most effective in stimulating creativity in students (Karnes et al., 1961). Besides using individual assignments to stimulate creativity, teachers should provide

situations for students to participate in group activities (Davis, 1991; Davis & Rimm, 1985). These group activities, in addition to enhancing creative thinking and academic performance, should provide students with opportunities for developing peer acceptance (Karnes et al., 1961). Another technique for developing creativity is the inquiry–discovery or problem-solving approach, which is an indirect teaching method (Feldhusen & Treffinger, 1980). Treffinger (1980) suggested that creativity is related to the discovery process. They stated that "experience with discovery learning enhances creative performance by forcing the learner to manipulate

the environment and produce new ideas" (p. 34). Feldhusen and Treffinger (1980) also reported that the creative processes of fluency, flexibility, elaboration, and originality were incorporated in the inquiry–discovery approach to teaching" (Fasko, Jr, 2001, 320).

Totally, some of the most important principles and procedures which have facilitating role in the process of creativity development in instructional environments are as follows:

- Encouraging students for their creative achievements
- Encouraging students to be sensitive to their ideas and thoughts and writing them down
- Supplying information about the nature of creativity and the concepts concerning the fact that any individual may be creative potentially.
- Using various teaching methods adapted to the different situations
- Employing question and answer methods as well as the procedures that lead in their active participation in classroom.
- Encouraging students to search different solutions for solving problems
- Avoiding the establishment of strict and limiting regulations in classroom
- Making the students familiar with the biography of creative people.
- Facing students with unsolved problems and demanding them to present modern solutions.

Research method

The main question of the present research is "What are the primary school teachers' functions in developing the students' creativity in the centralized system of education in Iran?

In other words, how much do they pay attention to this important matter i.e. developing the students' creativity and what measures are taken by them in this area? And research Objective is: identifying the teacher's functions in developing creativity among the students.

Statistical universe or the under-study population is about 875 teachers who are teaching in 42 girls' schools located in district one of Mashhad. Sample size, on the basis of the simple random sampling method, 100 teachers were chosen and interviewed. This study is survey research that the data about the function of the teachers and principals were collected through accomplish interviews with teachers.

Interview Questions are:

What is your attitude about developing creativity in students? What measures have you taken in this regard?

What are the factors related to the teachers which are effective on developing creativity?

What are the important obstacles or inhibitory factors in developing students' creativity in your workplace?

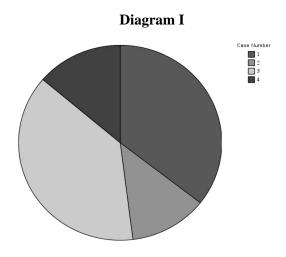
What are the special measures taken by the principal for developing students' creativity?

What measures should be taken by the education system about developing students' creativity?

Findings

The teachers who are teaching in district one of Mashhad Education Department gave a short definition about creativity in response to the question No.1. They had no significant knowledge about the methods of developing creativity and its principles.

The definitions presented by them about creativity have been reflected in Diagram I:



- 1-Creativity, The factor of community's progress: 80%
- 2- Creativity, A different glance on phenomena: 28%
- 3- Creativity, Ability to create an idea or thought: 86%
- 4- Creativity, New combination of thoughts: 31%

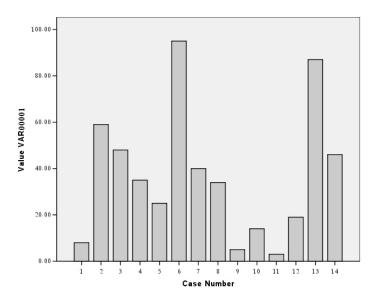
The collected data from interviews indicates clearly that the teachers pay little attention to developing students' creativity. The origin of this factor is associated significantly with the teachers' level of education and knowledge, their teaching methods and low rate of instructional facilities as well as the predetermined regulations prescribed by the education system.

Most of the under-study teachers hold associate degrees; they were bound to observe the regulations prescribed by the schools and education department and did their duties on the basis of the textbooks as well as the method of developing memory. They did not pay enough attention to developing students' creativity.

In response to the second question, concerning the factors effective on creativity, they consider the environmental factors more effective than personality factors. Most of them consider providing the facilities and scientific expeditions effective on developing creativity. The following diagram depicts the responses given by teachers about the factors effective on creativity:

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Diagram II



1-Encouraging and guiding students by the teachers: 8%

2- Creating motivation: 59%

3- Teacher's teaching method: 48%

4- Giving sufficient opportunity to the students: 35%

5- Cooperation of schools and parents: 25%

6- Providing facilities: 95%

7- Mental flux: 40%

8- Giving freedom of speech and action to the students: 34%

9- Low rate of learners in classrooms: 5%

10- Avoiding the method of keeping in mind the memorable materials: 14%

11- Teacher's mental tranquility: 3%

12- Teacher's studies in this field: 19%

13- Scientific expeditions: 87%

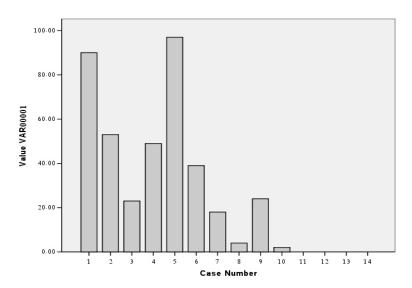
14- Encouraging students for their unusual activities: 46%

As it is demonstrated in diagram II, the most important factors effective on developing creativity from the teachers' points of view are as follows: providing facilities, scientific expeditions, creating motivation, teacher's teaching method, encouraging the students for their unusual activities, giving sufficient opportunity to the students, giving freedom of speech and action to students, cooperation of schools and parents, teacher's studies in this field, avoiding the methods of keeping in mind the memorable materials, etc...

In response to the third question, the effective obstacles in developing creativity, the teachers consider the insufficiency of facilities as the effective factor; some of them referred to other environmental and personality factors which are shown in the following diagram:

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Diagram III:



- 1. Lack of possibility students participation in classroom activities: 90%
- 2. Undesirable behaviour of principals and teachers: 53%
- 3. Lack of motivation in students: 23%
- 4. Fear of failure and criticism: 49%
- 5. Insufficiency of facilities: 97%
- 6. Boring and difficult materials of textbook: 39%
- 7. Lack of interest in modern teaching methods among the teachers: 18%
- 8. Students' mental and emotional problems: 4%
- 9. Large volume of textbooks' materials: 24%
- 10. Lack of variety in teaching methods: 2%

As you see, from among these factors, lack of motivation, fear of failure and students' mental and emotional problems are in part personal issues and the other matters are related to the teachers and they can take a very important step in developing creativity in students through trying to remove the obstacles.

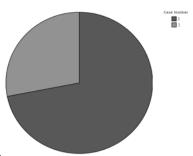
In response to the fourth question, i.e., whether the principal has taken special measures for developing creativity in students, most of the teachers consider the principals' measures for developing students' creativity merely to provide facilities to operate scientific expeditions and some of them mentioned holding scientific competitions and awarding the winners as a factor for developing creativity.

Diagram IV has demonstrated this matter

Diagram IV, Measures taken by the principals for developing students' creativity:

Diagram IV

1. Providing facilities for scientific expeditions

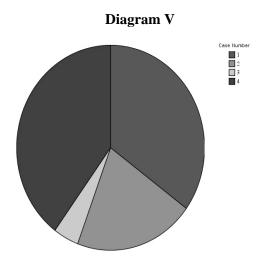


2. Scientific competitions

Considering the fact that on the teachers' point of view, the measures taken by the principals for developing students' creativity is limited to scientific expeditions and holding competitions; the question is "can the principals prepare the ground for developing the students' creativity through providing opportunities for the participation of the students in decision making and planning about administering the affairs of the schools?

Finally, in response to the fifth question, what measures should be taken by the education system for developing students' creativity? The teachers believed that education system should hold education workshops for teachers in order to make them familiar with different methods of developing creativity, compile appropriate textbooks, allocate sufficient time for doing scientific activities and teamwork in curriculum and provide suitable instructional facilities such as laboratory in school for students.

Diagram V, the teachers' suggestions about measures should be taken by the education system in developing students' creativity, has illustrated.



- 1. Holding instructional workshops for teachers: 80%
- 2. Compiling appropriate textbooks: 47%
- 3. Allocating suitable time for scientific activities and teamwork: 10%
- 4. Providing instructional facilities: 91%

In there, some samples of the interviews done with the teachers are presented for being aware of the procedure of interview and the details of the discussions:

Sample No.1:

Interviewer: What's your opinion about developing creativity in students? What have you, yourself, done in this respect?

Teacher: It is very good; developing creativity should be done in relation with the environment in which the child has grown up. The teacher should know what methods must be used and how he/she should employ it. For example, teacher should make or use some poems about alphabets.

Interviewer: In you opinion, what are the factors related to teachers that are effective on developing creativity?

Teacher: High spirits of teacher and the energy that the teacher spends for this task. No weakness in learning lessons, encouraging the student, creating a calm and stress-free environment at home and at school.

Interviewer: What are the effective obstacles in developing creativity?

Teacher: Strict environment in school and classroom, lack of suitable and felicitous encouragement, paying no attention by the teacher to the students' questions, suppression of students' ideas and attitudes

Interviewer: What are the measures taken by your school principal for developing students' creativity?

Teacher: Holding scientific and recreational expeditions.

Interviewer: In your opinion, what measures should be taken by the education system for developing students' creativity?

Teacher: Giving more freedom to teachers in choosing their own teaching and evaluation methods, increasing teachers' knowledge in this area through holding in-service classes.

Sample No.2:

Interviewer: What's your opinion about developing students' creativity? What have you, yourself, done in this respect?

Teacher: It causes the development of students' creativity and finally, it brings progress for the country. I have tried to use the heuristic methods and the ones which cause the dynamism and participation of students in activities as much as possible.

Interviewer: In you opinion, what are the factors related to teachers that are effective on developing students' creativity?

Teacher: Familiarity of teachers with best methods of teaching and enjoying required motivation and recognizing the objective.

Interviewer: What are the effective obstacles in developing students' creativity?

Teacher: Economical poverty and insufficiency of facilities.

Interviewer: What are the measures taken by your principal for developing students' creativity?

Teacher: Holding national festivals and competitions among students.

Interviewer: In your opinion, what measures should be taken by the education system for developing students' creativity?

Teacher: the education system can play a great role in achieving better education by providing facilities, student-centred and paying attention to students' interest and presenting appropriate lesson plans, as well as instructing the new methods of teaching to the teachers.

Conclusion & Discussion

This study with the aim identifying the teachers' functions in developing creativity among the students of the elementary schools located on district one of Mashhad was done. On the basis of the simple random sampling method in 20 schools from the whole 42 schools of this district was chosen and from any school five teachers totalling 100 teachers were interviewed.

The collected data indicate explicitly that the teachers pay little attention to developing students' creativity or they neglect this matter completely.

The teachers of this district presented an incomplete definition from creativity and some of them were not much familiar with this concept. They also have not much knowledge about the methods and principles of developing students' creativity. Most of the teachers whom were interviewed, were old and but had not enough experience about methods of developing students' creativity, their education level was low, and most of them had got associate degree. This may indicate negligence of our education system in employing professional and experienced teachers for this special and sensitive stage of education. Elementary stage of education is a period that the active and searching mind of students are seeking for convincing responses to his/her many different questions; this requires young and knowledgeable teachers with higher education degrees who are able and patient for responding to the students' questions.

With regard to the fact that most of the teachers consider availability of facilities and holding scientific expeditions as the most significant factors in developing creativity, it is an important point that although existence of facilities and holding scientific expeditions can be considered as significant factors in developing creativity, but, they pay little attention to the important role they can play in providing rich, safe, healthy and desirable environment for the students so that they can express their ideas and manifest their genius without any worry and in full mental tranquillity.

In general, the finding of the research shows that although our country's centralized system of education has restricted the selection opportunities and freedom of action for the principals, teachers and students as a result of which many obstacles are created in developing students' creativity, however, if the principals and teachers become acquainted to the concept of creativity and its development methods through in-service workshops and the importance of matter is revealed for them, in the same centralized system, there are also many opportunities which may be used optimally for developing the students' creativity. For example, the principals can play a significant role in developing the students' creativity through making the students to participate in administering schools and asking their opinion in this regard or performing extracurricular activities or through encouraging students and respecting their needs and demands.

The teachers can also play a considerable role in developing the students' creativity through taking the following measures:

To employ active teaching methods - To increase the participation of students in class activities - To do teamwork - To create opportunities for selection- To grant the students the right of decision making- To create opportunities for the students to ask in convenience their questions - To permit the students to make mistakes every now and then! It is not reasonable to expect the students to give the most compete and correct answers to the teachers' questions immediately, but the opportunity should be given to them to make mistakes, correct their errors, and seek for the best response, if the teacher reinforces the students' imagination and gives special respect to the students' new ideas and imagination, and provides chance for them to express whatever they think, etc...

Finally, the researcher confesses that since the sample is chosen from a small part of Mashhad City which has the minimum facilities compared with the seven districts of Mashhad Education Department, the research sample can not introduce the statistic universe; therefore, the results of this study can not be generalized to the whole city of Mashahd.

Notes

1. City in north east Iran which is a holy city of Shiite Muslims

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