Modern methods and technologies in teaching and classroom management in higher education

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Abstract: Today, achievements in science and technology in different societies has taken a non controllable and explosive trend such that human being witnesses discovery and invention of instruments, devices, structures and processes without which it is not possible to solve organizational problems. It means that people force to equip their knowledge with new and up-to-dated technologies and knowledge in order to face daily problems and solve them. It is also the case in higher education. Considering that three skills are important in management (scientific, technical and artistic), it is necessary to reinforce all of them in educational settings with cooperation of higher educational sponsors so that all professors can benefit from them and reinforce these skills. In this regard, strategies have been presented in conclusion and it is hoped that they will be used effectively.

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1. Introduction

21st century is century of information and knowledge. Knowledge acts as the most important wealth and power in human, social and economical exchanges. One of features of this century is outbreak of change in all personal and social lives so everybody should be ready in face of the change, meaning one should be taught to match their speed with continuous changes (Ebadi, 2005:100-103). Many factors are effective on change of educational culture including technological forces, socioeconomical forces. These forces are globally active and affect deeply commercial activities, productive process, services and so on. These factors also affect teaching and learning. So in modern century, methods of learning and teaching of knowledge and information should be changed (Attaran, 2004:19). Seiger- Ehrenberg believed that the main goal of education is to transfer young generation from selforiented world based on personal experiences and tangible facts to richer and abstract world containing scientific insights and values (Seiger- Ehrenberg, 1985). Most of educational experts believed that in industrial era, education cannot solve problems of information age anymore so it cannot prepare today young generation for complex world. Students should be taught to think and decide about what they have in their minds and judge truly about affairs rather than accumulating scientific facts in their minds (Mathews, 1994). True thinking, decision and judgment require growing creativity and innovation in educational classrooms and processes of teaching and learning should not be limited to textbooks, teacher, environment and school. Rather, education should be permanent, universe and accessible. This ideal is not possible without presence of qualified

professors who have new and up-to dated knowledge and information. Nowadays, results from studying different subjects (as different concepts, rules and theories) are derived, gathered and classified. The aim is to access accurate and comprehensive recognition from subjects. This recognition is not spontaneously useful for solving daily problems and it is necessary to examine their applications in order that they can serve people after getting positive results. Technology is defined as transfer of knowledge from phenomenological stage or translation of identification of the relationship between phenomena to directions or applied knowledge (Fardanesh, 1999:1). National academic educational technological panel of engineers has defined technology as a scientific set that uses teaching and learning in a real classroom with tools and methods that help extension of these applications (Zoofen, 2000:13). As technologies in other scientific fields, Educational technology includes two main components:

1- Software part containing methods, directions, patterns, strategies, categories.

2- Hardware part containing tools, devices and media.

These components supplement each other such that without one of them, technology will not be completed. For example, as a hardware tool, educational films should be based on methods, directions and patterns of supplying such films to make a perfect technology (Fardanesh, 1999:3). After defining technology, teaching, as one of variables of this study, will be investigated. Gage defined teaching as follows: any action taken by a person in order to facilitate learning of another person is called teaching (Gage, translated by Mahmud Mehrmohammadi, 1997:11). Ebrahimzadeh (2009:31) believed that teaching is a hierarchy of regular activities and is done variously in direction of leaning of learners. Learning is done by these activities and interaction between teacher and student. Without learning, teaching is useless and meaningless. One of undeniable realities in educational processes is that teaching never occurs unless it originates from professors' beliefs and is placed in center of students' lives (Palmer, 1997:20). Bruner believed that four questions should be answered in education:

1- What are previous presumptions and learning of students?

2- For more learning, define structure and composition of learning subject?

3- What is the sequence of learning materials in order to facilitate learning?

4- How are punishment, reward and feedback used in order to reach educational objectives? (Bruner, 1966:20).

Anderson has divided factors affecting education into two classes:

1- Educational factors: including how to present educational contents and time duration specified to learning of each subject by teacher

2- Personal differences: including general abilities of learner which determine understanding of student about directions and explanations of teacher. It also specifies the time leaner spends on learning (Anderson, 1985:11). Professors should challenge scientifically students by making non balanced situations in order to provide a ground for generation of new thought in students. Professors should support students' free thoughts and innovative activities and provide a situation in which students can grow their creativity and knowledge by analyzing their actions and attitudes (Sher, 1992). People like friendship and cooperation and generally benefit from relationship with others. So professors expect that their presence at classroom is reacted (Garry, translated by Maryam Nakhoda, 2004:269). Vakilian stated two important features hidden in teaching as follows:

1- Interaction between teacher and learner

2- These activities should be targeted by teacher (Vakilian, 2009:5).

Interaction between technology and suitable teaching and relationship with students and effectiveness of education depend on an important variable called management which is defined by Danli et al as derivation of individual and group activity coordination (Alagheh band, 2009:11). Cleland and King (1972) considered 4 criteria for management: regular and organized activity, objective, relationship among sources and works done by others. According to Mirkamali (2006:25), educational management is a social process and scientific, technical and artistic skills of human force should be coordinated so that professors and students can reach goals of education by creating motivations and growth and meeting individual and group needs.

3. Research method:

Data were gathered from library including note taking from domestic and foreign sources about subject under study. At first, required data and information were gathered by studying accurately references related to the subject. Then obtained information were set, described, interpreted and analyzed. The research method is descriptive-analytic and regarding the objective it is applicable.

4. Results and discussion:

Since teaching is a process in which teacher and learner interact with each other and new technologies in teaching are considered in this research, it is important to note that information age and networked world force professor to revise their educational experience. Expectations from higher education are being increased and fundamentals of learning goals of higher education have specified for growing permanent learners. It does not mean to change entirely educational interaction and learning goals, rather it means to refocus on traditional ideals of higher education. This ideal can be reached by growth of technology. History of educational technology in Iran show that unfortunately hardware dimension of this technology has been emphasized for transferring this important and vital technology and software dimension of educational technology has been neglected. This point becomes clearer when it is observed that most parts of the books in educational technology are being allocated to hardware. Even it is evident from many useless machines and devices that are stored in educational centers. Considering educational management, it is concluded that scientific strengths of professors include scientific aspect of management, use of up to date technology includes technical aspect of management and skill of teaching includes artistic aspect of educational management. These three aspects supplement each other so it is necessary to pay attention to specialty, technology and art of teaching in teaching and classroom arrangement. In using tools related to the technology, it should be noted that these tools should be continuously available in educational settings because in addition to using and familiarizing with educational materials and aids, educational system benefits from time saving and continuous application of this tool cause it to be normalized and coordinated with today knowledge. Positive effects of educational technology are observable in all classes, districts and university units.

5. Conclusion:

In conclusion, some practical suggestions are presented for using optimally new technologies in teaching and class management in higher educational centers

1- Honorable authorities of science department who are sponsors of higher education in Iran are requested to consider an educational course while on duty for university professors. If possible, tuitional teachers attend in training programs.

2- If possible, teaching certification is given to those who have taken certifications mentioned in Number 1.

3- If possible, the best ideas and recommendations related to that course are welcomed in order to increase competition among university professors at the end of educational courses. Some rewards effective on promoting and increasing benefits are granted to experts and advisors.

4- Training classes should be considered in the nearest place of teaching location rather than in format of training workshops because it is not possible for some to participate in these workshops (if suitable educational courses are being held in a certain university or province, they are less welcomed due to distance problems and related costs).

5- educational books should include the latest educational changes, technology and modern teaching methods and they should be given to teachers at the beginning of academic year (if holding classes needs more times to spend on, this method is replaced with it).

6- Coupons for buying books should be given to tuitional teachers so that they can increase their scientific strength more easily (the reason is presence of a number of tuitional teachers who do not use facilities of Science department and they are paid hourly).

7) Holding educational courses using new tools of educational aids in order that all professors around the country can benefit from them.

8) Providing educational aids for all university units (B.A students in a distant region have no information about application of new educational equipment except knowing something about apparent aspects of computer).

9) Regarding suggestion mentioned in Number 9, computer training periods should be considered freely for university units.

10) In appropriate time durations, students should use educational aid equipments by predetermining a time

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from computer sites and finally they can represent the results in classrooms (result of conference or research are represented at class in less time using up -to-dated technology).

11) Applicable equipment of modern technology should be accessed semi freely with certain discounts to professors and students including flashcard, transparent papers, and printers and so on.

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