The Study on the Impact of Teachers' Content Product on Their Performance in Schools of Tehran City at Academic Year 2012-2013

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ABSTRACT: The present research was conducted to study on effect of teachers' content product on their performance in schools of Tehran City at academic year 2012-13. The methodology of current study is of applied type in terms of goal and it is of causal- comparative kind in terms of descriptive nature. In this investigation, the statistical population includes all teachers from smart schools, which they have worked at academic year 2012-13. Quantity of sample size was 380 participants so by considering 10% probable loss of testees, 415 questionnaire forms were distributed among the respondents and finally 380 questionnaire forms were collected and analyzed. In order to explore the effect of training of teachers' content product in this study and with respect to deeply study on theoretical bases and background of research in this regard, the standard questionnaire was formulated with 45 questions in accordance with research objectives. The codified inventory was approved by 10 experts and after implementation of adjustments in 30 questions and trial administration of test among 30 testees the reliability of inventory was calculated as 0.826 by means Cronbach Alpha Coefficient and verified. The results indicated that according to teachers' view at schools of Tehran City, among variables, the maximum mean value (31.73) belongs to variable of students' note category and the minimum rate (16.74) is related to variable of designing of question bank from learners' notes and at the same time training of educational content product might highly affect on improvement in teachers' performance. But there is no difference among mean value of teachers' performance of those who had been trained for content product and teachers who had not passed this course and among content product variables, all of them i.e. learners' note category and scoring learners' notes, design of question bank, standardization of questions, and teachers' proficiency affected on using educational technology to improve teachers' performance to the great extent. Likewise, there is no difference between the comments of female and male teachers concerning to the impact of training educational content product on improvement of teachers' performance.

Key words: Education, Content Product, Performance, Teachers, Smart Schools

INTRODUCTION

Today, education and learning continue their way as a lifetime process during personal and occupational life for individuals. The very accelerating speed of knowledge creation and constant changes and developments in different field of technologies has made necessary the existing of a continuous and constant educational system for personnel in the organizations. As a result, simple, accessible, flexible, cheap and scalable teaching technique and measurement will be inevitable. In fact, with emerging information age and communication society, feeding theoretical bases are trained that its manifestation is revealed in the form of E-learning in educational field.

It has been tried during recent years to prove it that e-learning is more successful versus than traditional methods since some of effective factors on achievement of e-learning techniques are telecommunication platforms, broad- based access level for people to computer, and users' computer literacy level and educational software. In other words, sustainability and reliability of educational system in any community depends on its utilization from ICT. In modern method of learning, which is called as e-learning, the scientific and information feeding

methods to students have been converted into independence for acquiring information, knowledge, and skills by students with teachers' guidance. But, in traditional method of learning, students were receiving more or less their needed information, attitude, and skills directly from their teachers. But in third millennium through utilization of ICT, these techniques were organized and some opportunities, which have been based on these principles, were provided for students, including creation of motivation for self-directed and student- oriented learning, stimulation for interactive learning, promotion of computer and traditional literacy, encouraging group for team-building, providing opportunities for creativity, encouraging to accountability and responsiveness, and realization learning complex requests and goals (Shahrakipoor, Banisi; 2003:4-5).

E-learning systems and educational trans-media systems usually include three parts of educational content, users' model, and comparative model. These systems try to adjust educational content based on educational style and learners' taste by means of data, which are stored in user's model. In this course, production- oriented education and creating appropriate and efficient educational content are

considered as one of the major problems in design and production of e- lessons and texts so doubtlessly one of these challenges is related to developing e-learning and production of appropriate educational materials for learners (Bursolowsky and Milan, 2007). Thus, this is the knowledge of educational content product which anyone can build knowledge and produce it by learning. Accordingly, e-learning is a harbinger for new paradigm itself in which knowledge transfer is substituted with knowledge building. In other words, production of e-learning content is one of the foremost issues, which have affected most of researches in the field of e-learning (Yarezloo, 2010). Regardless of structure and format such a content may possess, e-content production process is basically the same and it comprises of content product (e-creation), conversion of content into usable formats (e-editing), and putting content on the given platform (e-publishing) (ibid). But, among them what considered as important is that educational agents including teachers and principals should pay attention to special points to move toward e-learning and it would rather before teaching for them to be able to adapt e-learning or virtual method in practice. Some of these points comprise of accessibility to the needed hardware and software tools and having proficiency, potential, and adequate skill in employing these tools, working experience with a virtual educational system as a student or instructor, having adequate time and interest for learning necessary software and exercise with them, capability to employ proper managerial method so that to make sure that whether presentation of learning lesson will provide the major goal i.e. efficient learning by taking virtual or electronic technique (Sarafinejad et al; 2008:153). With respect to what it mentioned, it can be implied that modern world of education under title of e-learning requires a new way of thinking while the nature of key elements (officials, policy-makers, and managers etc) for completion of establishment of an e-learning system may denote that educational institutes will determine how a process to be designed, presented, merged, and supported. The conducted studies in Iran regarding this subject by several researchers (including Kardan and Noor Behbahani, 2009; Sarafinejad et al, 2008 etc) indicate that although an accelerated movement has started toward e-learning, particularly with respect to training of content product, determination of tools for measurement, effectiveness, and efficiency of this factor requires creativity and new attitude in social and political paradigm along with advancement in technology and unfortunately most of principals in these canters and institutes tend to consider this issue as a process of reading and assignments and the like. Of the important problems to which researchers and officials are exposed in

realization of the relevant goals to smart schools one could refer to the following cases:

One of the reasons for failure of e-learning is due to inappropriate method of design and planning e-learning lessons, which have remained unchanged for several years (Mirzabeigi et al, 2009:1).

Unfortunately, no creation model was observed that specifically requires one of learning theories regarding content design in the field of e-content product in order to be compared (Mirzabeigi et al, 2009:19).

Many studies, which have been carried out regarding online learning, suggest that poor design and codification of lessons regardless of individual differences and various needs for learners has exposed the mission for this type of learning to failure (Shapiro and Varian, 1998; after Mirzabeigi et al, 2009:2).

The results of conducted investigations about learning media may show that media may not affect on improvement of leaning only based on their nature as media while digital media, especially internet, are not exception to this rule (Clark and Mayer, 2004; quoted from Mirzabeigi et al; 2009:2).

Alternately, the educational elements have been always trained in educational system on the job (OTJ) trainings have played very essential role in promotion of applied knowledge and skill for teachers and whereas content product is considered as new concepts and techniques thus in order to make it practical, teachers need to pass training courses and some of them also currently pass these courses. Given that the researcher is personally working in educational system and has always witnessed difference in performance of teachers and on the other hand is extremely inclined to study on new topics including content product etc accordingly s/he tends to give answer to the essential questions by conducting the current survey that: Does content product learning affect on teachers' performance in smart schools and is there any difference in performance of teachers who have been trained in content product classrooms with those teacher who did not pass these courses or not?

MATERIAL AND METHODS

Whereas the present research tends to study on impact of training of teachers' content product on their performance in schools in Tehran City at the moment, methodology of this study is of descriptive type since researcher does not alter size of variables and only reviews and describes the existing sizes as what they are. Alternately, since the results derived from this study can be used by directors and experts in human resources at educational system organization thus the present study is considered as applied type and whereas this descriptive research is intended to

compare performance of teachers who passed training courses of content products with group of teachers who did not passed this course therefore it is of causal-comparative kind of research. Thus, the present descriptive research is on causal- comparative investigation.

The statistical population in this survey includes teachers from smart schools at Tehran City, where they have been working in smart schools during academic year 2012-13 including 39968 participants and they produced learning contents so among of them, performance of that group of teachers, who have passed training classes of content product with those teachers who did not pass content product classes and they are working in smart schools are compared with each other.

According to statistical population with 39968 teachers in this study, a statistical sample group was selected as 380 respondents by using Crejcie and Morgan Sample Size Table and by means of single-stage clustered and simple randomized sampling method. In this technique first of all, two regions were selected among smart schools at different areas of Tehran City out of any geographical direction (north, south, west, and east) and also two schools from each of two regions and two teachers from these two schools were chosen as sample group by simple randomized technique.

The standard questionnaire was measurement tool in the present research that was codified based on goals and principles of smart schools. To formulate this questionnaire, researcher initially conducted study on theoretical bases and the rendered backgrounds deeply and with respect to goals and principles in these schools and through interview with then expert teachers in content product, the researcher prepared a list with 45 questions so after consultation with some experts (10 teachers) and with respect to advisor teacher and supervisor at last a questionnaire was administered with 30 questions (5-choices) including (very high, high, average, low, very low) as follows:

Personal information of teachers such as gender, age, educational degree, and working experiences was purposed in questionnaire form. In this questionnaire, teachers of these schools were asked to identify the rate of using each of the determined variable and sub-variables in the questionnaire in the field of managing their own classroom by selection one of the choices (very high, average, low, and very low) in this inventory so each of sub- variables has been computed based on scores 5, 4, 3, 2, and 1 respectively.

To determine reliability of the codified questionnaire, the formula for coefficient of internal consistency of questions, Cronbach Alpha was calculated and verified as 0.823 after trial execution of this test on 30 participants among teachers. Afterwards, questionnaire was administered and put at disposal of 418 teachers as statistical sample with aforesaid methods by considering the probable 10% loss in testees and finally 380 questionnaire forms were totally gathered and analyzed.

Table 1. Number of questions in the inventory with variables of performance measurement of teachers' content product in smart schools

Row	Variables	Number of questions in each variable
1	Notes category of students	Qs 1-7
2	Scoring of students' notes	Qs 8-14
3	Design for bank of questions	Qs 15-19
4	Standardization of questions	Qs 20-23
5	Proficiency in utilization from modern educational technologies	Qs 24-30

RESULTS

First question: How much does training of educational content product affect on improving teachers performance from schools at Tehran City? To examine above question, single t-test was used based on the table 2.

With respect to given data in Table 1 and test significance level (p<0.000) and its smaller value than (P<0.05), it can be concluded that this test is significant. Namely, significant difference is seen among rate of calculated mean and mean value of population (90) and it is deduced that teachers' response from smart schools of Tehran City differs statistically from the impact of educational content product on improvement of teachers' performance with mean value of population. With respect to the calculated mean rate (132.321) and its greater value than mean rate (90) of population, it may be concluded that according to teachers' view from smart school at Tehran City, training of educational content product affects on improvement of teachers' performance to great extent.

Second question: Is there any difference among mean rate of performance of teachers who passed course of content product from performance of teachers who did not pass this course? To examine the above question in t-test of independent groups the data in the table 3 were used.

According to variance equality test (Leven's test) and its relevant significance level (p = 0.088) that is

greater than (p = 0.05), these variances are equal. Thus, value of t-statistic is accepted at equality level of variances that is (t=0.977) and its significance level (p=0.329). With respect to this point that significance level is greater than (p=0.05) so test is not significant. In other words, there is no difference among mean rate of performance of teachers who passed course of content product from performance of teachers who did not pass this course.

Table 2. One sample t-test result

Educational content product	t	DF	Sig.	Means difference	Confidence interval		Mean
					Lower bound	Upper bound	
	61.465	379	0.000	42.321	40.967	43.674	132.321

Table 3. Independent sample t-test result

Performance	Leven's test		Independent t-test						
	F	Sig.	t	DF	Sig.	Means difference	Difference from standard deviation	Confidence interval	
								Lower	Upper
Variances equality	2.925	0.088	0.977	378	0.329	1.363	1.395	1.381	4.107
Variances inequality			0.954	359.27	0.341	1.363	1.429	1.449	4.179

DISCUSSION

In first question that suggests: (how much does training of educational content product affect on improving teachers performance from schools at Tehran City?), single t-test was used for sample and the results indicated that according to teachers' view from smart schools at Tehran City, electronic content product may highly affects on improvement of teachers' performance. This finding is complied with finding from the investigation which has been conducted by Haghighi and Ghasemi (2010) based on which teachers' participation in IT training courses, the relevance of educational materials and subjects regarding IT and embedding them proportionally to educational courses, equipping school with information systems, formative evaluation from teachers' knowledge relating to IT, which are some of ICT applications in high schools and at the same time with finding of surveying done by Shahmohammadi et al (2010) that denotes employing ICT in the fields of design and educational programming proportional to requirements, execution of educational curricula in relation to educational standard and goals, might affect on increased learning in academic students, flexibility of training structure, and educational evaluation of students namely on performance of learners. The finding of study done by Norton and Hathaway (2010) signifies that learning outcomes are positive and favorable after content product and lead to contemplative learning. Similarly, they concluded that content product by students might increase their motive and enthusiasm for learning and in teachers this is led to facilitation of using measurement tools and saving time and making educational logic more transparent and it improves teachers' performance.

Thus, training of content product may improve teachers' performance.

Likewise, in second question which suggests: (Is there any difference among mean rate of performance of teachers who passed course of content product from performance of teachers who did not pass this course?), t-test was used for independent groups and the results indicated that according to teachers' view there is no difference among mean rate of performance of teachers who passed course of content product from performance of teachers who did not pass this course. This finding is in line with findings from investigation done by the following researchers:

- Zamani et al (2010) concluded that based on students and their teachers' comment, mean rates of strong and weak points, threats, and opportunities are higher than average level 3; namely, despite of strong points and opportunities in these schools, there are also some weak points and threats. Of paramount strong points in these schools, one can refer to high level computer literacy and knowledge among students and teachers in these schools compared to ordinary schools and changing of teacher- oriented role into teacher as facilitator. Among weak points and threats to which these schools are exposed, one can imply the lack of appropriate structure and culture for implementation of application of ICT in education. In students' opinion, the provided strong points and opportunities for students in non- profit schools are further than in public schools; in other words, teachers' performance differs in various schools.

- The findings of research conducted by Najafi (2006) suggest that there is some difference among mean rate of IT-based teaching (application of computer and internet) from traditional and normal

techniques in educational achievement. Namely, performance of teachers who employ ITs in smart schools is higher than performance of teachers, who do not use ITs. Similarly, finding of survey of Norton and Hathaway (2010) signifies that learning outcomes are positive and favorable after continent product and they lead to deep learning.

Likewise, they concluded that content product by students might increase motive and enthusiasm for learning and in teachers it is led to facilitation in employing measurement tool and saving time and transparency of training logic and improves teachers' performance. Therefore, training of content product makes teachers' performance different in smart schools where they employ it.

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