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The usage of instructional technologies by lecturers
(Examples of Erzincan)

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Abstract

In this research, the usage of instructional technologies in activities of education by the lecturers is investigated. The research is performed by applying questionnaires to 38 lecturers from education faculty in 2010-2011 in Erzincan. The questionnaire consists of 28 questions. For the analysis of the research results SPSS program is used, mean and standard deviation for the answers of all lecturers in the research are calculated. Eventually, it is determined that lecturers the most use backboard which is one of the oldest instruction technologies and computer which is one of the new educational technologies. Lecturers persist to use blackboard their lessons. And book is among the most using materials by lecturers.

Keywords: lecturers, instructional technology, education faculty, pre service teachers, academicians

1. Introduction

The type of technology being used in schools is changing and evolving to meet the rapid pace of technological changes in all sectors of contemporary life. Collectively, these are known as educational technologies. They bring with them many advantages and disadvantages, and their introduction development and impact has resulted in actual reforms to the educational system.

Such changes have already, and will continue, to have major political and economic implications within the higher education system. The advancement and acceptance of these ideas cannot be expected to occur overnight. It is equally unrealistic to expect professional development centers to be created in all universities, not least because of the difficulty of finding faculty with the necessary experience and expertise to run these centers. Also, time is a precious commodity, which makes the provision of face-to-face training for everyone impossible (Luck, Peng and Ali, 2010).

Many suggestions and recommendations have been made to improve teacher education programs. Effective teaching strategies, sound pedagogy, appropriate curricula, faculty development and updating of equipment are typically the most important considerations in teacher education. Although teacher education institutions have tried their best to provide quality education to their students for many years, many concerns have been voiced. Those concerns now include debate and controversy about the best means of integrating technology into teacher preparation, and how to effectively prepare teachers to do the same in their classrooms (Akbulut, 2010; Oh and French, 2007). Teacher preparation programs bear the primary responsibility for preparing teachers to use technology in effective and efficient ways to positively influence student achievement. However,
there is notable variability in such programs. Some focus primarily on developing the skills needed to use specific technologies that they might encounter as a beginning teacher, while others focus on broader concepts of teaching with technology (Abbitt and Klett, 2007). But in general, teacher-training programs do not provide future teachers with the kinds of experiences necessary to prepare them to use technology effectively in their classrooms” (Milken Exchange on Education Technology, 1999).

New educational technologies provide opportunities for gains in resource efficiency and in educational effectiveness (Gulbahar, 2008; Guven, 2008; Ling, 1996). In general, faculties of education carry a considerable responsibility in shaping the competencies of the future workforce in developing and mastering technological literacy. Positive experiences with education technologies help students to transfer these experiences to their own lives (Mueller, et al. 2008; Oliver, 1994). However, faculty and students now produce documents with more information and in far more diverse formats as a result of desktop publishing, online libraries and databases, and file transfer capabilities. The pervasiveness of digital technologies motivates a thorough review of technological impacts on curriculum and instruction in teacher education (Flick and Bell, 2000; Kahraman, Çevik and Kodan, 2010). in spite of that Stoll (1999) have criticized investments in educational technologies, arguing that there is little evidence they affect teaching and learning in a positive way.

Teacher training is very important issue. Because of effectively education and education system pass the most basic way to influence the education system (Altun Yalcin et al. 2011; Altun Yalcin and Yalcin, 2011; Gurbuz et al. 2010; Kahraman, Demir and Yalçın, 2008) Because of that many teacher educators and teacher education programs have been experimenting with the use of technology over the years. Despite their efforts, there are still challenges and concerns regarding teachers’ abilities to integrate technology into teaching and learning activities and their comfort in doing so (Oh and French, 2007). For example, the successful implementation and application of computer technologies, which is the most widely, used educational technology in classroom teaching and learning among academicians in the public universities, has received great response among academicians and students (Latchem et al. 2006; Luck et al. 2010; Odabaşı, 2000). Researchers investigating the uptake of computers by beginning and novice teachers frequently conclude that if teacher education programs are to achieve their goals, a necessary component of the course is the provision of instructional models for classroom implementation of computers (Diem, 1989; Haywood and Norman, 1988; Novak and Knowles, 1991). As an emerging country aspiring to be a member of the EU, Turkey needs to achieve best practice in its university teaching and learning and faculty need help in improving their teaching, research and management abilities, adapting to new technology and coping with the changing work conditions. There is clearly need for professional development for all faculties, regardless of rank, location or personal circumstances (Latchem et al. 2006).

2. Methodology

The study consists of lecturers at different academic discipline in education faculty at Erzincan University. The sample unit was formed by 38 lecturers in total. Data were collected through likert-type scale in the study. The scale (developed by Hacısalihoğlu (2008)) to assess level of instructional technologies used by teachers was used in this study to assess levels of instructional technologies used by lecturers. The scale included 38 questions. The students’ answers are graded as never-1, seldom-2, sometimes-3, too often- 4 and always-5. The data obtained at the end of the study were analyzed by the way of a packet program.

3. Findings

The problem under investigation is to explore level of lecturers’ instructional technologies usage. The respondents’ scores on the level of instructional technologies usage scale were analyzed by utilizing descriptive statistics.

Table 1. Result of descriptive statistics

| Instructional technology  | Mean  | Standard deviation |
|--------------------------|-------|--------------------|
| 1 Computer               | 4.07  | .911               |
| 2 Bulletin board         | 1.72  | 1.031              |
| 3 Data show              | 2.27  | 1.322              |
The arithmetic mean and standard deviation values of the lecturers’ level of instructional technologies usage are given in Table 2. According to the results of the study, lecturers the most use blackboard which one is an instructional technologies (x= 4.18). Lecturers use book and computer too much in their lessons (x=4.05; 4.07). In addition to this, internet, slides and slide projectors are used very much by lecturers (x=3.32; 3.18; 3.02). Lecturers often use projection data, electronic slate, pictures, model and samples, training CDs’, graphic (x=2.44; 2.78; 2.81; 2.56; 2.86) and they sometimes use overhead projector, multimedia, caricature, movies, data show (x=2.21; 2.37; 2.05; 2.27). They use seldom ELMO, DVD, VCD, cameras, opaque projectors, video, video camera, videotapes, storyboard, bulletin board (x=1.74; 1.74; 1.72; 1.84; 1.54; 1.60; 1.94; 1.72; 1.72). And LCD panel, filmstrip projector, videotext, television, television programs, recorder, tele-meetings, radio programs, radio, turn table are used at least by lecturers (x=1.38; 1.40; 1.24; 1.42;1.43; 1.32; 1.27; 1.28; 1.21; 1.44).

4. Conclusion and Suggestion

Result of this study is concluded that lecturers the most use backboard which is one of the oldest instruction technologies and computer which is one of the new educational technologies. Lecturers persist to use blackboard their lessons. And book is among the most using materials by lecturers. Despite lecturers use together the newest and the oldest instructional technologies; they never use some of the old and new instructional technologies have been identified.

Lecturers use instructional technologies in their lessons gives the opportunity to pre service teachers to meet with instructional technologies. This meeting enables pre service teachers get to know the instructional technologies and to learn how to use them. However pre service teachers can find the opportunity individually assess the problems encountered during the use of technologies in lessons, inaccuracies in the use of technologies and contributions to education. Also this situation can provide pre service teachers to learn better by living one to one. Pre service teachers always model and imitate the lecturers. So lecturers to use technologies in their lessons will be very good, useful, advantageous, educatory and effective. For lecturers to use technologies in their lessons they need to know to
use. It is especially important to use correct pedagogy when modeling the use of this technology in a classroom of pre-service teachers. Not enough lecturers to use technologies to learn, they must learn to use effectively the lessons and subjects. Teacher educators should continue to learn and model new and appropriate technologies, being aware themselves of when, how, and why technology is used to enhance teaching and learning.

Instructional technologies can improve preservice teacher training by providing access to more and better educational resources, offering multimedia simulations of good teaching practice, catalyzing teacher-to-trainee collaboration, and increasing productivity of noninstructional tasks. Teacher preparation may be enhanced by creating opportunities for teachers in training to see and experience the positive effects of technology on teaching and learning. And they may be motivated to participate in Professional development programs in the use of technology because they see them as an opportunity to become a trainer/mentor for other teachers.

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