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# University instructors' concerns and perceptions of technology integration

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#### ABSTRACT

This study attempted to investigate the concerns and perceptions of Iranian EFL university instructors of technology integration in their classes. A sequential mixed method design was used in this study including Hall, George, & Rutherford's (1977) Stages of Concern Questionnaire (SoCQ) and Rogers' (1995) Diffusion of Innovation (DOI) questionnaire followed by a semi-structured interview. There were 91 university instructors asked to participate in the survey, out of whom nine were interviewed and finally, a focus group of five participants was conducted. The findings of the study revealed that the university instructors showed more Self concerns (Informational and Personal stages). "Relative advantage and compatibility" attributes of Diffusion of Innovation model were proved to be significantly different among instructors of different fields of study while the participants' gender revealed a significant difference in their "trialability" attribute. Moreover, based on the quantitative data of the study, lack of administrative facilities, instructors' technology literacy toward technology integration and accessibility of technology for all the students were reported to be the source of the instructors' concerns.

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#### 1. Introduction

Along with the rapid development of technology in all fields, computer-based tasks and other types of instructional technologies have entered the educational programs in recent years. Beside the regular use of technology in people's everyday life, applying technology in educational systems can make teaching and learning more practical (Dwyer, Ringstaff, & Sandholtz, 1991; Sheingold & Hadley, 1990; Warschauer, 2000). Technology can make the teaching and learning environment more interactive and the instructions more effective. By applying technology in the classroom and involving it in the curriculum, teachers can improve their teaching and also collaboration and cooperation among students (Warschauer, 2000). To integrate technology in the classroom, teachers need to feel competent enough to use technology in their instructions. The way they integrate technology in their instruction, the amount of their technology use and success can be related to some factors like the way they think about technology, their degree of technology acceptance and their beliefs and concerns about integrating it.

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lives, some do not seem to integrate technology in their work and classes. From the vast area of applications that technology could have in teaching, some Iranian EFL instructors usually use technology merely for preparing teaching materials and activities in the classroom. This can be due to some factors including their concerns and perceptions of technology integration in the classes, their weakness in technology integration, lack of appropriate administration support, lack of sufficient facilities and training, lack of cultural awareness of technology integration, and finally their social tendencies. The cultural setting of Iran is similar to its some neighboring countries in the area and the role of culture regarding technology integration is rather ignored in some Asians countries. English is taught as a foreign language in most of these Asian countries. Hence, given the diversity of social and cultural differences, Asian teachers have with their native counterparts, different educational policies are likely to be taken into account in these settings. Cultural background of language teachers can play a determining role in application and integration of educational technology; however, not ample attention is given to cultural attitudes and differences particularly in Asian content. So, the present study tends to shed more lights to the role of culture in integrating technology in language classes in Asian countries and provide some solutions to the possible barriers. Consequently, the present study attempted to identify the stages of concern and perceptions

Although most Iranian teachers use technology in their daily







of Iranian university instructors of technology integration in their EFL classes. It, also, sought to find the possible barriers of technology integration from instructors' perspectives.

This paper is organized in six sections. The first three sections elaborate on definitions and components of attributes of innovation model as well as stages of concern. They, also, tend to provide a brief review of existing literature in both Iranian and non-Iranian educational settings. However, the next three sections explain the methodological procedure and present a quantitative and qualitative analysis and interpretation of data. The closing section of this paper is allocated to conclusion.

#### 2. Concern in technology integration

Based on George's et al. definition (2006) of concern, the instructors' feelings, thoughts and consideration given to technology integration are referred to as their concern about technology. There are different kinds of concerns because individuals perceive technology differently, and their amount of technology use depends on the way they think and feel about it. As George et al. (2006) mentioned, concern is reflected in the mental activity, thought, worry, analysis, and anticipation of a person toward something, and depending on the closeness to and involvement with an innovation, one's concerns will be different in the type and intensity.

#### 2.1. Concern-based model and stages of concern

Hall (1987) classified the stages of concern as unrelated concerns, self-concerns, task concerns, and impact concerns. The teachers in the beginning of their pre service programs have concerns unrelated to their teaching. Later in these programs, their concerns change to self-concerns, at this stage, they think more about their adequacy and knowledge. The concerns of the beginning teachers are mostly about their job of teaching like preparation of materials, and scheduling. The impact concerns are the kind of concerns that experienced teachers may be more likely to have, concerns about effects of teaching on students and improvement of teachers. Finally, on the basis of the unrelated, self, task and impact concerns, Hall tried to develop a classification of seven stages of concern about innovation, and they are called stages of concern because there is a developmental movement throughout them. Hall, George, and Rutherford (1977) stages of concern about innovation can be described as follows:

- Stage 0 (Unconcerned/Awareness stage): In this stage, the individual indicates little concern about or involvement with innovation.
- Stage 1 (Informational stage): The individual indicates a general awareness of innovation and interest in learning more details about it.
- Stage 2 (Personal stage): In this stage, the individual is uncertain about the demands of the innovation, his adequacy to meet those demands, and his role with innovation.
- Stage 3 (Management stage): The stage in which, the individual focuses on the processes and tasks of using innovation and the best use of information and resources.
- Stage 4 (Consequence stage): It is a stage in which the individual focuses on innovation's impact on students in his or her immediate sphere of influence.
- Stage 5 (Collaboration stage): In this stage, the individual focuses on coordinating and cooperating with others regarding use of innovation.
- Stage 6 (Refocusing stage): The stage in which the individual focuses on exploring ways to reap more universal benefits from innovation.

Research on teachers' concerns show that some teachers' concerns are about personal and informational issues, and most teachers use technology for preparing their teaching activities rather than integrating it in their instructions (Fong, Khader, & Idros, 2010; Yang & Huang, 2008).

Studies revealed that the non-user teachers and beginners showed higher concerns in all self, task and impact concerns (Zea, dalam Pendidikan, di Sekolah, & Mahat, 2004), and the reason may be sought to be in their novelty and lack of ample experience. Moreover, not only non-users of technology may have high selfconcern level, but also experienced teachers as well as the ones who had already attended the training courses may show high self-concerns and actually have concerns of Informational and Personal stages (Aziz, 2008). This indicates that teachers are collecting data about that innovation and want to know more about it. Also, they want to know the effects of innovation on themselves. In contrary, some research illustrated a significant change in all concern stages of teachers after they participated in online courses in comparison with their concerns before attending the training courses, they showed more concerns in personal and refocusing among other stages (Liu, Theodore, & Lavelle, 2004).

Studies on experienced teachers revealed that they had highest concern stages of consequence and collaboration, and less experienced teachers have more informational concerns (Ai Lian, 2010; Williams, 2001). Another longitudinal study on beginning teachers' concerns demonstrated that personal and individualized concern impact these stages and, also, concerns for students' academic growth and motivation were high among other stages of concern (Watzke, 2007). As George et al. (2006) pointed out the stages of consequence and collaboration are regarded as impact concerns. At these stages, the teachers are more concerned about the effects of innovation adoption on the students and learners and, also, they are more concerned about relating what they are doing to what their colleagues are doing.

As the stages of concerns are developmental, when teachers find their answers, they may move from Self concerns to other stages of task or impact. There is some evidence that when the knowledge of teachers toward the innovation increases, their concerns move from self-concerns to the management and impact concerns, in that they are more concerned about innovation, how to apply it and how to use it in the class, and they are more concerned about proper management and scheduling the class program by using innovation, and also, they want to know if it has worked for students and has any effect on their learning process (Mukti, 2000).

In line with what mentioned above, when teachers are concerned about the impact of innovation on their duties, activities and responsibilities, they are at the stages of consequence, collaboration and refocusing. Indicating that their concerns are about the effects of their adoption of innovation in instructions on their students, their use of innovation in relation to their colleagues' use of it, and thinking of something that would work even better (Alias & Zainuddin, 2005). Studies on professional teacher development concluded that in addition to the outward journey of concerns from self to task and from task to student, there is a journey inward from concerns about their personal capacity of managing their classes to their understanding of teaching (Conway & Clark, 2003).

#### 3. Perception

**Rogers** (1995) identified five attributes of innovation that explain the reason of successful and wide adoption of an innovation or its failure. The rate of an innovation adoption can also be predicted by these attributes. These five attributes of diffusion of innovation include: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability. Download English Version:

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