

Chapter 17

The Factors that Influence E-Instructors' Performance in Taiwan: A Perspective of New Human Performance Model

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ABSTRACT

Online teaching is the fastest growing form of delivery in higher education and faculty is expected to integrate technology into their teaching. The purpose of this study is to examine the performance of e-instructors in Taiwan based on the new human performance model. To achieve the purposes, this paper adopted a questionnaire survey and One hundred and six online instructors from 25 universities in Taiwan participated in this study. Correlation and multiple regression are performed to analysis the data. After statistical analysis, the results show that the four factors, advanced skill, basic skill, effort, and self-efficacy, contributed significantly to the model variance of e-instructors' performance in online teaching. The results also provide the evidences of the importance of self-efficacy in online teaching.

INTRODUCTION

The usage of technology among university faculty is a critical issue in higher education. They are expected to integrate technology into their teaching either in classroom or online (Saleh, 2008).

Moreover, they are required to be familiar with technology and know how to manage and use it in order to facilitate learning (Coppola, Hiltz, & Rotter, 2002). There is a great volume of references intend to examine faculties' attitude, experiences, and the integration of educational technology in higher education (Chen & Chen, 2006). A study by Haas and Senjo (2004) showed most faculties hold

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positive views toward educational technology, but far fewer of them are actually integrating technology into their courses. A survey of e-instructor in higher education by Vodanovich and Piotrowski (2005) revealed that about 70% of faculty hold a positive view of using the Internet for instructional purposes and believe the Internet is an effective teaching tool, but there were less than half (47%) of faculty use online instructional approaches to teach in their courses. Saleh (2008) point out that faculty might be afraid to use e-mail, have little confidence in using advanced technology, and resist changing. Furthermore, attitudes toward technology may not be enough to predict the performance of e-instructor in higher education (Vodanovich & Piotrowski, 2005).

Chen and Chen (2006) indicate that e-instructors' self-efficacy is an important factor in efforts to integrate technology into teaching. Self-efficacy originates from Bandura's Social Learning Theory and is "the belief in one's capabilities to organize and to execute the courses of action required to produce given attainments" (Bandura, 1997, p. 2). According to Peterson and Arnn (2005), the new human performance model demonstrates ability, motivation, situational factors, and self-efficacy are the four critical components that impact human performance. The purpose of this study is to examine the performance of e-instructors in Taiwan based on the new human performance model.

THEORETICAL BACKGROUND

According to Goodyear, Salmon, Spector, Steeples, and Tickner (2001), e-instructors have eight competencies for online teaching, which are (a) process facilitator, (b) adviser/counselor, (c) assessor, (d) researcher, (e) content facilitator, (f) technologist, (g) designer, and (h) manager/administrator. The process facilitator is concerned with facilitating the range of online activities that are supportive of student learning. The adviser/counselor works with learners on an individual

or private basis, offering advice or counseling to help them get the most out of their engagement in a course. The assessor is concerned with providing grades, feedback, and validation of learners' work. The researcher is concerned with engagement in production of new knowledge of relevance to the content areas being taught. The Content Facilitator is concerned directly with facilitating the learners' growing understanding of course content. The Technologist is concerned with making or helping make technological choices that improve the environment available to learners. The designer is concerned with designing worthwhile online learning tasks. The manager-administrator is concerned with issues of learner registration, security, recordkeeping, and so on (Goodyear et al., 2001). In this study, adviser/counselor and process facilitator were combined as facilitating learning, and other competencies were modified as facilitating learning, research development, content expertise, technology, instructional design, and administration.

As defined by Bandura (1997), self-efficacy is one's judgments of his/her capabilities to organize and execute courses of action required to attain designated types of performances. Hasan (2003) pointed out that self-efficacy has a positive correlation with the usage of information technology and also provides insights into learning performance and the ability to acquire new computer skills. According to the Faseyitan, Libii, and Hirschbuhl (1996), the confidence levels of faculty in using computers are significant factors in the usage of educational technology. In addition, they concluded that computer self-efficacy is a significant factor that can predict faculty's adoption of educational technology. In the study conducted by Kagima and Hausafus (2000), they investigated the relationships between the computer self-efficacy of faculty and integration of electronic communication in teaching. The results showed a statistically significant relationship between technology integration and computer

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