Distance Education and Learning Style

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INTRODUCTION

The father of adult education, Malcolm Knowles (1913-1997), predicted in the 1970s that teaching, especially the teaching of adults in the 21st century, would be delivered electronically (1970, 1975). His prediction came true. Distance education was created primarily to meet the needs of working adults who could not come to campuses to takes classes because of work and family responsibilities. Today's academic institutions are in transition. Although colleges continue to attract 62% of high school graduates onto their campuses immediately following graduation, larger numbers of so-called nontraditional learners also are seeking degrees via distance education (Hammonds, Jackson, DeGeorge, & Morris, 1997; Palloff & Pratt, 1999). In response to Knowles's prediction, giant online universities have been established to meet the increasing demand of degree-seeking working adults. For example, in 2002, the University of Phoenix, part of the Apollo Group, saw its enrollment surpass 100,000 students, making it the largest institution of higher learning in the United States (Bash, 2003). Without its new electronic delivery system, teaching of such a large number of students would be unimaginable. Thanks to the development of information technology (IT), it has solved many problems by changing the roles of students and faculty.

One of the immediate problems that instructors face with IT in distance education is adult learners' learning style. Some instructors go the extra mile to accommodate learners' learning styles. From course syllabi, course design, and media rich delivery systems, they do everything they can to make their courses meaningful to adult learners who may have different learning styles. Other instructors may just dump their courses onto computer screens, making no further efforts to take into consideration learners' learning styles. In fact, the existence of distance education is, to some extent, justified by learners' learning styles. Open any books regarding distance education and learning styles, and there will be descriptions about introverted and extroverted students. Introverted students are believed to become confident at expressing themselves and providing more thoughtful responses to their assignments (Bradshaw, 1997; Klemm, 1997; Palloff & Pratt, 1999; Wang, 2002). On the other hand, extroverted students may not like the asynchronous nature of distance education. Without a doubt, there is an intricate relationship between distance education and learning styles. Although the debate has been revolving around the differences between face-to-face interaction with students and online learning and technology enhanced instruction, distance education learners may achieve the same learning results as traditional classroom learners if their learning styles are better accommodated. For those who have been critical of distance education, this article provides a good opportunity to find out more about distance education and learning styles.

BACKGROUND

Distance education, with its roots in correspondence education, has had more than 150 years of history in the United States (Gibson, 2006, p. 148). As IT further develops, colleges and universities have applied these advancements to distance education (Rhoda, 2005, p. 149). Students, who enroll in college courses, complete their degrees that are offered online, by CD-ROM, or in studios through ISPN (integrated services packet network) lines or IP (Internet protocol) video. As Rhoda (2005) notes, "most institutions of higher education have concentrated their efforts on the conversion of their face-to-face to an online format. It is this delivery mechanism, offered in anytime, anywhere virtual classroom, that has attracted increasing numbers of students" (p. 149). It is not surprising when a university president reports that its university has put one-third of all of its courses online. Developing countries also started distance education from correspondence courses. Because they have a large population, developing countries have successfully used radio and TV to deliver courses to students and learners. As technology

Table 1. Gregorc's style delineator approach (SDA)

Gregorc's Learning Styles	How We Learn
Concrete-Sequential	Learning is linear and sequential.
Concrete-Random	Learning is concrete and intuitive, and the person thrives on problem-solving.
Abstract-Sequential	Learning is abstract and analytical, and the person thrives on a mentally challenging but ordered learning environment.
Abstract-Random	The person is emotional and imaginative, and prefers an active, interesting, and informal learning environment.

adoption penetrates into every society, even developing countries have started to deliver courses via IT.

As distance education became more and more popular, researchers began to study learners' learning styles to find out whether instruction matched students' learning-style preferences and whether students' learning outcomes can be improved because of this kind of accommodation of students learning styles. To date, a plethora of scholars and researchers have provided practical insights into learning styles. For example, Dunn's (1984) learning styles focus on five (environmental, emotional, sociological, physiological, and psychological) strands that affect each individual's learning. Gregorc's (1982) style delineator approach (SDA) is based on studies into the functions of the left and right brain hemispheres. His system of learning takes into account the different ways of perceiving and ordering information. Table 1 above contains a detailed explanation about Gregorc's SDA.

Such zealous interest in learning styles is not without a solid reason. Researchers and practitioners want distance education like any other forms of education to be learner-centered education. Learner-centered distance education must strive to accommodate learners' learning styles in order to maximize learning.

THE ROLES OF FACULTY AND LEARNING STYLES

To say that learners basically have three learning styles—visual, auditory, and tactile—is to oversimplify learning styles. One's learning style is such an individual and complex process that it may defy any one learning style inventory. Learning style is commonly defined as the way in which each person absorbs and retains information and/or skills. It refers to the way in which

each individual collects, organizes, and transforms information. Among other things, it influences the setting in which people learn best, the kind of subjects they want to learn about, and how they will approach the learning situation (as cited in Wang, 2006, p. 156). Because adult learners are capable of self-directed learning, instructors have to be a guide on the side instead of being a sage on the stage (Brown, 2006). For distance education to be effective, instructors can no longer teach the way they were taught. In fact, principles on learning styles have been generated. Distance education instructors need to follow these principles accordingly. Among these principles, Friedman and Alley (1984) developed the most authoritative principles:

- Both the style by which the teacher prefers to teach and the style by which the student prefers to learn can be identified.
- Teachers need to guard against teaching by their own preferred learning styles.
- Teachers are most helpful when they assist students in identifying and learning through their own style preference.
- Students should have the opportunity to learn through their preferred learning style.
- Students should be encouraged to diversify their style preference.
- Teachers can develop specific learning activities, which reinforce each modality or style.

Grow's (1991) study indicates that distance education instructors must change their roles in order to accommodate learners' learning styles as learners may go through four different stages ranging from "dependent" to "self-directed." Table 2 illustrates the situational roles of distance education instructors in relationship to learners' learning styles. Wang (2004, 2007) points

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