Chapter 3
Constructivist Internet–Blended Learning and Resiliency in Higher Education

Jennifer L. Penland
Sul Ross State University, USA

ABSTRACT
This chapter focuses on the changes that have occurred recently in the distance education arena and the impact on higher education institutions focusing on undergraduate and graduate students taking these courses. Data were gathered from 164 individual participants enrolled in education courses at Shepherd University during the spring 2013, fall 2013 and spring 2014 semesters from end of course surveys with ten questions focusing on the following areas: when students learn, why students learn and how students learn. Findings suggested; (1) increased enrollment in distance education courses, (2) courses allow for flexible schedules (3) better communication with instructor and (4) more meaningful learning overall for students.

INTRODUCTION
The latter part of the 20th century provided the fertile environment for change in educational institutions not particularly at the tertiary level of education, but especially in the K-12 environment. Various approaches to education were implemented, some of which included an open classroom concept, continuous education, grammar schools, schools for the gifted, alternative education, and distance education. It is this last approach to education that caught the attention of tertiary educators particularly at the undergraduate and graduate levels because of the way that economics and technology began intersecting in unforeseen ways. The cost of education all over the country along with the need to cater to a diverse population provided fertile ground for changing the traditional methods of education for the traditional students who enter college immediately.
Constructivist Internet-Blended Learning and Resiliency in Higher Education

The first decade of the 21st century has seen some dramatic changes in the way that institutions are able to reach out to diverse populations, and in the way education is delivered.

According to a national study (Allen, 2005) released by the Sloan Consortium in November, 2005, over 2.35 million students took at least one online course online; 65% percent of higher education institutions are using primarily core faculty to teach their online courses; schools identifying online education as a critical long-term strategy grew from 49% in 2003 to 56% in 2005, 63% of schools offering undergraduate face-to-face courses also offer undergraduate courses online.

Higher educational institutions find themselves no longer insulated from economic and social pressures as they might have been a quarter of a century ago. The face of the United States is changing rapidly for reasons among which include increased immigration, a social upheaval with a dwindling middle class population, and the consequences of a rapidly changing world in which technology is playing a leading role (Penland & Rice, 2005). Institutions of higher education are facing increasing demands for providing alternative scheduling, multiple course offerings, and blended technology-based programs that would more closely service the needs of changing populations.

To illustrate what has happened in the field of Distance Education in the last decade, interesting findings have emerged from the most recent report to Congress from the National Center for Education Statistics (2011). In 2007-08, 20 percent of all undergraduates (4.3 million) took at least one distance education course and of these students, about 4 percent took their entire program through distance education. The percentage of undergraduates who took any distance education courses rose from 16 percent in 2003 to 20 percent in 2007-08; over the same period, however, the percentage who took their entire program through distance education decreased from 5 to 4 percent. By contrast, the percentage of post-baccalaureate students who took their entire program through distance education (9 percent) was higher than the percentage at the undergraduate level (NCES, 2011).

As adult learners adjust their learning role to become more active and self-directed, a careful exploration of their preferences for learning environments can help instructors to plan and design on-line courses more efficiently and effectively (Markel, 1999; Huang, 2002; Lee & Tsai, 2005). Older undergraduates enrolled in distance education classes and degree programs at higher rates than did younger students. Fifteen percent of undergraduates age 23 or younger participated in a distance education course, compared with 26 percent of those between ages 24 and 29 and 30 percent of those age 30 or older (NCES, 2011). Students who had a dependent or were married also participated in distance education classes or degree programs more often than other students. Twenty-nine percent of students with one or more dependents and 32 percent of married students took a distance education class, in contrast to 18 percent of students without these characteristics.

As for distance education degree programs, 8 percent of students who had at least one dependent or were married participated, as compared with 2 percent and 3 percent of their respective counterparts. While 18 percent of all undergraduates in 2007-2008 were married, 40 percent of all undergraduates in a distance education program were married. In addition, though 25 percent of all undergraduates had one or more dependents, 55 percent of all undergraduates in a distance education degree program had at least one dependent.

Therefore, to understand the preferences of an adult in a constructivist internet-blended learning environment means not only providing adult learners with opportunities to experience a student-centered and more controllable learning setting, but also retaining and motivating for lifelong learning (Chu, 2001; Sabry & Baldwin, 2003).