

## Chapter 44

# Using Action Research to Assess Student Performance in Traditional vs. E-Learning Formats

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### **ABSTRACT**

*While the popularity and acceptance of online education is undeniable, many are concerned about measurable performance of student learning in Web-based courses. The issue of student performance dates back to the start of correspondence courses as the initial challenge to the traditional classroom (McLaren, 2004). Yet, today, it is not a question of whether we pursue this educational medium, but rather, are students in the Web-based courses performing equal to or better than their counterparts in the classroom-based courses? An action research study was conducted to assess student performance in a traditional versus e-learning format at a historically Black land-grant university located in the southern part of the United States. The population sampled included 293 declared business majors who were self enrolled in either organizational behavior or international business undergraduate courses. Both courses in both formats were conducted over a 3-year period. A chi-square test was run to determine if correlation exist between final grades and delivery method. The results revealed that the delivery method did not impact student performance; hence, concluding that there was not sufficient evidence to assert that a relationship exists between final grades and delivery method.*

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## INTRODUCTION

The growth of the Internet and the World Wide Web are attracting the attention of educational institutions across the nation. Increasingly, the World Wide Web is viewed as an effective and inexpensive means of delivering courses in the educational sector. Professors and instructional designers are being asked to adapt courses for Internet delivery while students are being promised more flexible learning formats.

The move to Web-based delivery of college- and university-level programs and courses is on the rise. This trend is driven by everything from changing enrollments to increasing costs associated with maintaining school facilities. The diversity of today's student population demands that educational institutions adapt the delivery of their programs to accommodate student's concurrent commitments, including work and family.

The Internet and the World Wide Web are significantly impacting all levels of education by changing the nature of the way we teach and learn. These resources open a boundless range of new learning opportunities and experiences for the classroom. The World Wide Web provides new methods for delivering course materials, enabling distance educators to create learning communities of students and teachers that collaborate and explore subjects of interests. It has created a paradigm shift in pedagogical practices, whose potential is largely untapped.

Education via the Internet is essentially online education, which Desmond Keegan (1988) characterizes as:

- the physical disjointing of instructors and students that differentiates it from traditional classroom education;
- the use of computer networks to deliver educational content; and
- the provision of two-way communication between and among instructors and students.

There are many terms for online education, which refer to the use of electronic applications and processes to learn (e.g. e-learning, online learning, web-based learning and virtual learning, to name a few). "E-learning is here defined as interactive learning in which content is available online and provides automatic feedback to the student's learning activities" (Paulsen 2002). The term e-learning is a broader concept which encompasses the use of all available electronic media to deliver educational content, including Internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV and CD-ROM (Backroad Connections, 2003; ANTA, 2003).

While the popularity and acceptance of online education is undeniable, many are concerned about measurable performance of student learning in Web-based courses. Given the rapid pace of technological innovation, there's a subtle distinction between being on the cutting edge and the bleeding edge of change. Because our students are the one's to suffer from our mistakes, this concern for quality of learning is paramount. The issue of student performance dates back to the start of correspondence courses as the initial challenge to the traditional classroom (McLaren, 2004). Yet, today, it is not a question of whether we pursue this educational medium, but rather, are students in the Web-based courses performing equal to or better than their counterparts in the classroom-based courses. With the hopes of assuring quality instruction, numerous studies have compared the performance of distance learners to that of traditional learners. Johnson and Aragon (2003) argue that student performance is directly impacted by the quality of instructional design and recommend a conceptual framework that represents a holistic perspective when developing online courses. Rungtusanatam and colleagues (2004) suggest that educators and researchers alike should focus on how best to design instruction for diverse populations in widespread locations. Educational institutions across the nation are impacted by many diverse forces motivating

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