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distance Learning

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ABSTRACT

OVER THE PAST 30 YEARS millions of people worldwide have used education at a distance because it can provide a useful alternative to conventional classroom-based education. Distance Education programs assume two basic criteria: students and teachers are separated by distance (geographical, temporal, and contextual) and technology is used to lessen or eliminate the distance barrier. This paper compares traditional vs. distance learning after examining the academic literature affecting distance learning in higher education. The review centers on the following issues: (1) student performance; (2) scholarly equivalency; (3) key success factors; (4) key failure factors; (5) faculty issues and distance higher education; (6) gender issues and their impact on distance learning; and (7) viability of key respondents accurately representing the higher education institution's position when using a survey.

Key words: distance learning, technology, higher education

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INTRODUCTION

Over the past 30 years millions of people worldwide have used education at a distance because it can provide a useful alternative to conventional classroom-based education¹. Distance Education (DE) programs assume two basic criteria: students and teachers are separated by distance (geographical, temporal, and contextual) and technology is used to lessen or eliminate the distance barrier. DE courses allow students to take courses not available on campus, to advance to high levels of learning, to benefit from cost-effective learning environments, and to utilize a manageable and appropriate means of instruction while meeting their individual, distance learning needs².

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STUDENT PERFORMANCE

Studies comparing DE to traditional instruction investigated (a) the level of student satisfaction with DE courses, (b) how communication technologies affect learners and teaching, (c) effective teaching behaviors, and (d) ways DE courses foster change³.

Student characteristics such as study habits, attitudes, perceptions, motivation, educational level, goals, time management, preferences and individual variables (learning style, marital status, GPA, age, and gender) have been examined. Most of these characteristics have shown no statistically significant effect on achievement or success in DE courses. However, individual variables such as learning styles and ethnicity, background, and gender were found to have a limited effect on the success of distance students⁴. In addition, Bernt and Bugbee found that adult learners might need more evaluative feedback than younger students because they may have lower educational levels or may not have been in school recently⁵. Ross and Powell found that women have a higher success rate in DE courses than men⁶.

Other variables, such as student goal-centeredness, procrastination levels, and intrinsic motivation, were found to be significant determiners of persistence and achievement⁷. Students who are goal-oriented, non-procrastinators, and intrinsically motivated have higher success rates.

The method of media presentation does not seem to affect achievement or student satisfaction. It appears that the instruction, not the media, is important⁸. Coldeway concluded that DE approaches, when applied with effective instructional techniques, are successful⁹. Extensive pre-planning, an instructional tool such as study guides and structured note taking, visuals and graphics, and instructors training enhance instruction¹⁰.

Clark offered an extensive list of teaching and presentational behaviors that enhance DE courses¹¹. A partial list includes (a) strategies for reinforcement; (b) realistic assessment; (c) diversification of pace and activities; (d) a strong print component; (e) personal instructor involvement; (f) concise, cohesive verbal presentations; and (g) case studies or examples. Clark recommended teaching at least one session on-site. Haaland and Newby also recognized aspects of teacher behavior that positively influenced presentation: using student names, well-defined statements of purpose, utilization of printed material, discussion, and voice inflection¹². DE is not designed to replace face-to-face teaching, but is developed as an alternative for students with distance considerations. Blanchard drew the following conclusions¹³:

•Based on pretest-posttest designs, telecourses or teleteaching have been as effective as traditional classrooms.

- Telecourses are more effective than correspondence courses.
 - Telecourses enhance the opportunity for student access.
 - Telecourses are improved when instructors have been trained in DE instruction.
 - Telecourses are successful when planning, organization, and pedagogy are used skillfully.
- In general, other reviews of research support Blanchard's conclusions.

SCHOLARLY EQUIVALENCY

The question then becomes, is the mode of instruction the only important factor for students in the modern university? Perhaps the best way to examine this would be by asking what education would look like if we eliminated the traditional university entirely and were left with only distance education. G.Casper, President of Stanford University, speaks of nine roles that universities play in modern society¹⁴. These roles are (a) education and professional training; (b) credentialling; (c) social integration; (d) providing a rite of passage; (e) networking; (f) knowledge assessment and creation; (g) the selection of academic elites and peer review; (h) fostering a worldwide community of scholars; and (i) the transfer of knowledge.

Clearly, distance education can augment or replace many of these roles, but several cannot be adequately replaced. In particular, distance education is not likely to replace social integration, rite of passage, and networking, which are primarily social events experienced through long-term on-campus group interactions. In fact, recent studies -like those published by Hallowell, Kraut, Sarbaugh-Thompson & Feldman in 1998- indicate that use of the Internet and e-mail as social tools lead to a variety of psychological and communication problems. Yet, distance education can replace, to some extent, training, credentialling, knowledge assessment and creation, selection of academic elites, fostering a scholarly community, and knowledge transfer, which can be partially defined as roles that rely on delivery systems or communications technologies.

A further distinctive trend relates to the perceived dichotomy between distance and traditional teaching. For the most part, the dichotomy is one of degree rather than of kind (but nonetheless real for that). In those countries where a dual-mode approach to distance teaching is the norm, many universities view their distance teaching as an extension of their on-campus programs, often perceiving the close similarity as an implicit guarantor of equivalence of standards. Often, course curricula and examinations are closely related, if not identical, to those provided for on-campus students, and regular full-time academics teach both students on-campus and external students. Consequently, it is now generally accepted that distance teaching, where appropriately managed and well equipped, is effective in delivering

high quality courses to students¹⁵.

KEY SUCCESS FACTORS

Looking back over the century or so since the establishment of the first university department of correspondence teaching, some broad trends are evident with respect to the evolution of online distance learning (ODL) and its relationship to the traditional university.

The first and most obvious trend relates to widening access to university education. Even the most cursory appraisal shows that distance teaching has provided such access for many millions of students and that enrollment has grown to become a substantive part of the university student population in many countries. In a number of countries, distance education students comprise some 10-14% of the total undergraduate student population and in a few cases the proportion is as high as 39-40%¹⁶.

The capability to virtually connect anywhere at anytime eliminates distance and time as barriers to accessing information, thus creating enormous potential for students and teachers to rethink the resources available to them for their information needs and their learning preferences. Additionally, eliminating physical space and time considerations creates learning alternatives that were not here-to-fore possible. These alternatives make it possible for students to take a course anytime from anywhere according to their convenience and schedule and thus eliminate the synchronicity as an issue¹⁷. Individuals can communicate either synchronously or asynchronously, exchange ideas, cultivate discussion groups about specialized areas, and research a topic that interests them.

Moreover, these environments provide a set of new opportunities, challenges, and result in a set of dynamics that can greatly differ from traditional classrooms¹⁸. Higher education institutions are offering online programs in addition to or in lieu of traditional classroom environments. Virtual universities, which emerged as mere theoretical concepts and innovative proposals a few years ago are now viable and functional entities in a competitive higher education market¹⁹.

A related trend concerns scale of operation. In a number of cases, particular open universities have a student population, which is bigger than that of the median-size university in the same country, and in few cases bigger than the largest traditional university²⁰. The substantive growth of the last few decades suggests that distance education now enjoy a relatively high status.

Harasim, Hiltz, Teles and Turoff reported on the results of Harasim and Yung's 1993 study that surveyed 240 teachers and learners that used the Internet for education²¹. Of the 176 responses to the question regarding differences between learning in a computer mediated communication (CMC)

and a traditional classroom, 90% reported that there were differences, and the responses are reported as follows:

- The role of the teacher changes to that of facilitator and mentor.
- Students become active participants; discussions become more detailed and deeper.
- Access to resources is expanded significantly.
- Learners become more independent.
- Access to teachers becomes equal and direct.
- Interactions among teachers are encouraged significantly.
- Education becomes learner centered; learning becomes self-paced.
- Learning opportunities for all students are more equal; learner-learner group interactions are significantly increased.
- Personal communications among participants is increased.
- Teaching and learning is collaborative.
- There is more time to reflect on ideas; students can explore on the networks; exchange of ideas and thoughts is expanded; the classroom becomes global.
- The teacher-learner hierarchy is broken down. Teachers become learners and learners become teachers.

The success of distance teaching is, no doubt, the primary reason for its enhanced status. This success is evident not just in the scale of distance teaching or in the academic and instructional quality of many of the courses provided. But also in the acknowledged satisfaction of students with their experience of distance learning and with the benefits accruing to graduates in later life²².

KEY FAILURE FACTORS

Firstly, there is the question of cost. Viewed from the perspective of comparative costs, the argument in favor of using technology is clear. Productivity in conventional education, so the argument goes, is effectively static, being based on a student-teacher ratio fixed within a relatively narrow band; an increase in student numbers, therefore, effectively triggers a concomitant increase in staff. Since staff costs are a high proportion of teaching costs (typically some 60% to 80%) the potential for increased productivity is low. This view, however, is at best only partly true. In practice, many stratagems are adopted to get around these apparent rigidities and so reduce the unit cost of traditional teaching, increasing student/teacher ratios²³. Moreover, there is a growing volume of research which suggests that the new information technologies have failed to deliver on the promised increase in productivity in other sectors of the economy, perhaps because of

