10.13. The American Journal of Distance Education Volume 14 Abstracts

The AJDE Volume 14, Issue 1

Editorial

Technology-Driven Change: Where Does it Leave the Faculty?
Michael G. Moore

Articles

Deterrents to Participation in Web-Based Continuing Professional Education
Kathy J. Perdue and Thomas Valentine

This study examined the perceptions of certified public accountants concerning deterrents to participation in Web-based continuing professional education. A survey instrument was mailed to a random sample of the Georgia Society of Certified Public Accountants' membership, and 444 usable surveys were returned. Four broad dimensions of deterrence to participation in Web-based education were identified through factor analysis. The two most influential deterrents were Concerns about Electronically Mediated Communication and Concerns about the Quality of Course Offerings. The other two were Concerns about Access to Technology-Associated Resources and Concerns about the Availability of Necessary Personal Resources. The vast majority of respondents reported that they had access to the technology and that they perceived themselves as having the personal characteristics necessary for participation in Web-based education activities. However, the proportion of respondents using Web-based education for continuing professional learning in 1998 was minimal.

A Meta-Analysis of the Effectiveness of Telecourses in Distance Education
Krisanna Machtmes and J. William Asher

This study used meta-analytic procedures to examine experimental research literature about the use of telecourses in adult and higher education. Weighted effect size analysis procedures were used. The study included experiments that used video and either one-way or two-way audio. The purpose of this study was to review evidence concerning the effectiveness of telecourses. The instructional features that impacted learner achievement were type of interaction during the broadcast, type of course, and type of remote site. Two-way interaction was found to be the best method of interaction between learners and the instructor. Most of the studies failed to provide information about their learner attrition
rate, thereby casting a shadow on the results.

A Distributed Collaborative Science Learning Laboratory on the Internet

Laura R. Winer, Martine Chomienne, and Jesús V·zquez-Abad

A Distributed Collaborative Science Learning Laboratory (DCSLL) was designed, prototyped, and pilot-tested as the “Electrical Circuit Simulator.” This laboratory was part of a module on electricity within an introductory distance course for postsecondary students on the scientific method. The concept of DCSLL emerged from work in distance education and new technologies, cooperative/collaborative learning, and science education. Instructional design principles derived from these areas are presented, and their implementation in the DCSLL is described, followed by results from the pilot test. Analysis of the results led to the articulation of six instructional design guidelines, identified as being key to the development of such learning environments.

Participant Interaction in a Course Delivered by Interactive Compressed Video Technology

Kathleen Dodge Kelsey

Fully interactive learning environments have been demonstrated to increase student satisfaction, learning, and retention in the educational environment. Using Moore’s (1989) framework for interaction in distance education settings, this study investigated participant interactions in a course delivered to five sites by interactive compressed video (ICV) technology. The purpose of this study was two-fold—to determine the extent to which participants took advantage of opportunities for interaction and to note their perceived barriers to interaction. The participants failed to take full advantage of the opportunities for interaction provided in the course context. Seven barriers to interaction, which focused on ICV technology limitations and student situational and dispositional characteristics, were identified. Implications for practice and future research are discussed at the conclusion of the study.

Interview

Speaking Personally with Beatriz Fainholc

Yolanda Gayol

Beatriz Fainholc is the Director of the Center for the Design, Production and Evaluation of Multimedia Resources for Learning in Argentina. Since 1987, she has held the position of Professor of Educational Technology at the National University of La Plata, Buenos Aires,
where her research has focused on educational technology and distance education. As a consultant to Argentina’s Ministry of Education in 1986, Dr. Fainholc designed the first nationally delivered distance education program that provided technical, agricultural training in rural areas. Dr. Fainholc has also served as a consultant to several Secretaries of Education of provincial governments in Argentina, as well as in Uruguay. She is the author of five books: *Educación a Distancia* (1980), the first Argentinean book on distance education; *La Televisión en Los Niños Argentinos* (1984); *La Tecnología Propia y Apropiada* (1990), used as a textbook to train thousands of teachers in Argentina and other Latin American countries; *La Interactividad en la Educación a Distancia* (1999), which introduces a model of distance education; and *Educación a Distancia en Canadá* (1994). Yolanda Gayol, who is an instructional designer at the World Bank Institute for Distance Learning, interviewed Dr. Fainholc.

**Book Reviews**

**Learning and Teaching in Distance Education: Analyses and Interpretations from an International Perspective**

Daniel Granger

*Learning and Teaching in Distance Education: Analyses and Interpretations from an International Perspective.* Otto Peters. (London: Kogan Page, 1998, 248 pp., price not listed).

**Information Technology in Higher Education: Assessing Its Impact and Planning for the Future**

Kathy J. Schmidt


-------------------------------

**The AJDE Volume 14, Issue 2**

**Editorial**

Welcome to the For-Profit Providers—But with Some Concerns
Michael G. Moore

Articles

Distance Education Copyright, Intellectual Property, and Antitrust Concerns
Kenneth D. Smith, John Paul Eddy, Thomas C. Richards, and Paul N. Dixon

An empirical examination of accredited American higher education institutions was conducted to obtain baseline data regarding distance education copyright, intellectual property, and antitrust concerns. Additionally, a multiple-case study involving ten of the top thirty accredited distance education institutions in America was conducted. Policy approaches were examined for all institutions, and differences were discussed between public and private institutions as well as between the following Carnegie Classification institutions: Research I and II, Doctorate I and II, and Master's I and II. Data indicated that, out of the schools surveyed, 22% of the institutions in these Carnegie Classification categories published copyright and intellectual property policies on their institution's Web site. In the case study, it was found that 90% of the institutions centrally controlled their distance education program administration as well as the copyright and intellectual property policies related to it.

Performance and Perceptions of Distance Learners in Cyberspace
Peter Navarro and Judy Shoemaker

This study compared the performance and perception of cyberlearners to that of traditional learners. A study of several hundred undergraduate students taking an introductory economics course at the University of California suggests that cyberlearners learn as well as, or better than, traditional learners regardless of characteristics such as gender, ethnicity, academic background, computer skills, and academic aptitude and that they do so with a high degree of satisfaction. CD-ROM-based lectures, electronic testing, threaded electronic bulletin boards, and online discussion rooms all appear to be effective instructional technologies. The CD-ROM-based lectures that simulated the traditional classroom experience were regarded as being both the most essential and most enjoyable instructional medium.

BRIDGE: A Model for Comparing the Costs of Using Distance Instruction and Classroom Instruction
Frank I. Jewett
A computerized cost-simulation model designed to compare the cost of expanding a campus using distance instruction to that of classroom instruction is discussed. The rationale for the cost comparison is the working hypothesis that the benefits of distance instruction are at least as good as those of classroom instruction. Cost comparison examples from classroom, television/broadcast, and asynchronous network courses are discussed. The model also demonstrates the cost-saving potential of sharing courses and programs among campuses.

Distance Education for Dentists: Improving the Quality of Online Instruction

Heiko Spallek, Peter Berthold, Diarmuid B. Shanley, and Rolf Attstrom

This study describes the development and the evaluation of quality assurance criteria for online dental education. These criteria were developed by the authors and evaluated by oral health professionals through an Internet survey. The survey indicated that oral health professionals ranked the creation of scientifically based, frequently updated courses that clearly define their educational goals and objectives as highly important.

Distance Education and Diversity: Are They Compatible?

Allan C. Lauzon

This article argues for understanding distance education as a community of practice that must acknowledge and accommodate diversity in the context of increasing economic globalization. It asserts that any community of practice is embedded in a larger social context that influences values and practice. It also examines the historic and contemporary social, economic, and political forces that inform and influence distance education practice. This is followed by reflections on the implications for distance education practice and its current capacity to be sensitive to diversity and to meet the needs of culturally diverse learners.

Interview

Speaking Personally with Shirley M. Davis

Darcy W. Hardy

Shirley M. Davis is the director of Learning Innovations for the PBS Adult Learning Service (ALS), the nation's largest satellite- and Web-based service for higher education. In this position, she oversees all aspects of live satellite events, from topic identification to budget development, program design, marketing, production, delivery, and evaluation. Before coming to PBS in 1991, Davis was the director of media-based programs at Purdue
University. In 1999, Davis became president of the United States Distance Learning Association (USDLA). She is also active in the Educational Telecommunications Division of the University Continuing Education Association and received their 1998 Divisional Leadership Award. Shirley was interviewed by Darcy W. Hardy, director of The University of Texas TeleCampus.

**Book Review**

Higher Education in an Era of Digital Competition: Choices and Challenges

Janis L. Hall


------------------------------------

**The AJDE Volume 14, Issue 3**

**Editorial**

Is Distance Teaching More Work or Less?

Michael G. Moore

**Articles**

Is Distance Teaching More Work or Less Work?

David DiBiase

This article presents data collected in a year-long study in which the author and his assistants kept detailed records of their time spent teaching and maintaining two comparable university courses. One course was offered online to adult professionals away from campus, the other offered to traditional undergraduates in classrooms on campus. The courses had similar learning objectives, similar student activities, and equally favorable ratings by students. Both were mature courses that required only routine maintenance and revision. The data do not support the widely held belief that teaching an asynchronous online course requires more effort than teaching a comparable synchronous classroom course. Although the distance course required more frequent attention, the total teaching and maintenance
time spent per student was less than that required to teach and maintain the classroom course. Categories of teaching tasks are also compared.

Faculty Work in Developing and Teaching Web-Based Distance Courses: A Case Study of Time and Effort

James A. Visser

Using an experiential case approach, this study explores the conventional wisdom that distance education courses require greater faculty work effort and time commitment than traditionally taught courses. The study's basis for analysis is an instructor's time and effort in developing and delivering a graduate-level course in public administration, for both a distance course (a modality with which he had no previous experience) and his traditional classroom courses. The study finds support for the conventional wisdom. But it also suggests hypotheses for future comparative analysis that development and delivery time and effort may partially depend on the accumulation of instructor experience and the level of institutional support. This article also identifies some implications for future research and faculty participation in distance education.

Capabilities-Based Educational Equivalency Units: Beginning a Professional Dialogue

Ryan Watkins and Charles Schlosser

This article proposes a basic model for the transformation of academic equivalency in distance education, shifting from a unit of measurement that relies on time in the classroom (the Carnegie unit) to one that focuses on learner achievement. The Capabilities-Based Educational Equivalency (CBEE) model puts forward a framework of academic equivalency that is founded on valid and useful instructional design objectives. While allowing time to be variable (rather than constant) and holding academic achievement relatively constant, the CBEE model permits the comparison of student achievement in face-to-face and distance education, as well as between programs delivering instruction via a wide variety of media.

A New Tool for Managing Students' Questions in Web-Based Distance Education Courses

Rafael H. Scapin and Euclydes Marega, Jr.

This article describes a Web-based question-answering system geared toward courses carried entirely via the World Wide Web. The question-answering system is template based and uses the mSQL database's W3-mSQL scripting language to generate HTML files dynamically, or “on the fly.” The entire system is managed through an mSQL database located on a Web server, and data are stored and recovered on demand. The system was developed to make interaction between students and teachers easier in distance courses.
taught via the Web and will be implemented in courses being carried out by the Centro de Divulgação Científica e Cultural/Center for Scientific and Cultural Dissemination (CDCC) at the University of São Paulo at São Carlos, Brazil.

Student Perceptions of Satisfaction and Opportunities for Critical Thinking in Distance Education by Interactive Video

Cheryl Hilgenberg and William Tolone

Critical thinking is an important component of learning, yet it has received little attention in distance education literature. The purpose of this study was to investigate graduate students' satisfaction and perception of opportunities for critical thinking in distance education courses that utilized a two-way audio/video system

Interview

Speaking Personally with Janet K. Poley

Bill Anderson

Dr. Janet Poley is president and chief executive officer of ADEC, a national distance education consortium of state universities and land-grant institutions. She is a leader in developing collaborative distance education initiatives, both nationally and internationally. She is a member of the World Campus Advisory Committee at The Pennsylvania State University, and is part of the planning committee for the University of Wisconsin-Madison annual international conference on Distance Teaching and Learning. Dr. Poley is interviewed here by Bill Anderson, a senior lecturer at Massey University in New Zealand and a doctoral candidate in the Adult Education program at The Pennsylvania State University.

Book Review

Dancing with the Devil: Information Technology and the New Competition in Higher Education

Charlotte Farr


------------------------------------