ED 430 552   IR 019 685

AUTHOR   Reppert, James E.
TITLE   Implementation and Utilization of Educational Technology.
PUB DATE   1995-05-00
NOTE   11p.
PUB TYPE   Reports - Evaluative (142)
EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   *Computer Uses in Education; Course Evaluation; Distance
                Education; *Educational Technology; Faculty Development;
                Higher Education; *Instructional Design; *Instructional
                Effectiveness; Technological Advancement;
                Telecommunications; Telecourses
IDENTIFIERS   Indiana University; *Technology Implementation; *Technology
                Utilization

ABSTRACT
        This paper examines the various uses of video, microcomputer
and related media technologies as effective instructional design tools.
Highlights include descriptions of: the Telecommunications Department at
Indiana University; an evaluation of telecourses through student
questionnaires and identification of those students who might have problems
with telecourses; tutoring for new telecourse faculty; ways that media affect
student performance in the higher education classroom; the role of
technological advancements in higher education instructional design models;
and benefits of educational technology for students and teachers. (AEF)

East Texas State University
Educational Technology 578
Instructional Design and Development
(Spring 1995)

"Implementation and Utilization
of Educational Technology."

James E. Reppert
Department of Theatre and Mass Communication
Southern Arkansas University
SAU Box 9229
Magnolia, Arkansas   71753-5000

Phone: (870) 235-4258
Fax: (870) 235-5005
E-mail: jereppert@mail.saumag.edu

How can educators effectively implement technology into their curricula? The days of 16-millimeter movie projectors are over. Today, cable television, satellites, videotapes and multimedia are bringing the real world into higher education classrooms. Interactive education, in the form of distance learning, is becoming more common on university and community college campuses. Teachers must stay ahead of the information technology curve in order to give their students the best possible educational experience. This paper will examine the various uses of video, microcomputer and related media technologies as effective instructional design tools.

There can be problems in dynamic disciplines to stay abreast of frequent changes in technology and equipment. This is particularly so in the broadcast arena, as cable, satellites and interactive media are only three of the new technological areas potentially open to students. Faculty must be aware of such changes when modifying broadcast curricula, so their graduates can successfully compete for jobs in the real world (Eastman, 4).

The author describes how her institution, Indiana University, is responding to the emerging scope of telecommunications curricula. The Telecommunications Department has organized its curriculum into four tracks: Social and Cultural Studies, Telecommunications Delivery Systems, Design and Production, and Industry and Management. Many students take

introductory courses in each track, both to acquaint themselves with the material and to ascertain which track they would like to major in. The hope of faculty is to give students a sense of "New Professionalism."

This is an excellent attempt by one of the leading Telecommunications schools in the country to make its students as proficient as possible in the four tracks. They also feel the education they are providing will establish the centrality of communication to the liberal arts education curriculum at Indiana University. The benefits of such a system include instructing broadcasting students about more than just production, but management, advertising and effects, just to name a few examples.

The Indiana University situation is unique, as its Telecommunications faculty and student base is large enough to successfully experiment with the goal of "New Professionalism." For many broadcast faculty who teach at small institutions, the limitations of university curriculum requirements do not allow for such innovations. There simply is not enough money available to design new curricular models, now matter how laudable the instructional goals are. Many outstanding professors toil at such institutions with small budgets and few course offerings.

The advent of microwave and satellite technology has brought about innovative methods by which courses are offered. What types of skills are needed for adequate instruction in these

cases?   Some answers can be found in "Identifying Predictors of
High Risk Among Community College Telecourse Students," an
article in a 1991 issue of The American Journal of Distance
Education. It discusses how faculty can identify students who
are experiencing difficulty in coping with televised courses
demanding self-discipline.

A series of questions were formulated a research team to aid
in their evaluation of the situation. What type of student
enrolls in a telecourse? What type of student is likely to be
unsuccessful in a telecourse? What learning style is successful
in a telecourse? What steps can institutions take to lower
telecourse attrition rates? If patterns of commonality among
less successful telecourse students could be identified, methods
for making teaching more meaningful could be activated. A
related institutional issue was the idea of student retention,
particularly as it pertained to state and federal funding for
education.

One hundred fifty-one telecourse students filled out
questionnaires. A total of 108 were found to be successful
students, with the rest labeled as unsuccessful. Those who were
internally oriented believed success in courses was largely
determined by their own behavior. They would put in the time
necessary for good grades in their courses, no matter how the
subject matter was presented. Unsuccessful students were largely

externally oriented, neither having the confidence or the independent study skills necessary to academically prosper in a telecourse. Another significant finding of the study was that a telecourse format was best suited to those who did not have a concrete learning style.

If institutions are able to conduct similar surveys among its telecourse students, those who are externally oriented can be discovered early in the term. They can be made aware of factors that predispose them to drop out of telecourses. The authors determined that a student enrolled initially in one of these courses had no higher risk of failure than those who had taken more than one did. The number of credit hours each telecourse student was taking had no significant impact upon their success or failure. Older students had a tendency to stay in telecourses more than their younger classmates did, primarily because their money and time were viewed as more valuable.

Positive aspects to this questionnaire strategy can be utilized by institutions utilizing distance learning. By discovering those who have problems studying in telecourses, faculty can specifically tailor their lessons to or receive feedback from all students on occasion. If those labeled as unsuccessful are made aware by competent instructors' methods by which their study habits could be improved, retention rates for telecourses could drop.

New telecourse faculty could be tutored by peers who have experience presenting material in a dynamic, extemporaneous and visual fashion. Problems could arise if a new telecourse instructor received no help from experienced peers when preparing lesson plans. By practicing lectures and watching them on videotape, faculty could present telecourse material in the most productive manner for internally and externally-oriented students.

There are also other media considerations that affect student performance in the classroom. The ways by which college and university curricula develop is changing, in part, through innovative uses of mass media by institutions and professors (Gill, 84). The author believes if these many visual stimuli available through media sources are utilized as instructional tools, the education of all students in higher education can be enhanced. He also feels these potential changes in curriculum will help students define themselves and their interactions with others.

Because of the power of mass media, individuals can keep their attention focused on television, film or computers better than many forms of communication. If these traits can be successfully translated into a higher education atmosphere, students can better comprehend course material. It can serve to intensify the learning experience for both faculty and students.

The author feels educators should examine how to best bring these media elements into their respective curricula.

There are many relevant points made by the author in this particular section of his book. There is no question that using outside mass media tools judiciously in higher education gives students richer learning experiences. In an MTV generation, when young people appear to possess shorter attention spans than ever, it is crucial that curricula keep pace with these concerns.

The external element of using media materials in the classroom can be easily accomplished by administrators and faculty on a long-term basis. Listening to long lectures with few visuals does not enhance learning experiences for students. True innovators can adjust their curricula and budgets to take full advantage of new trends in information technology.

Such technological advancements will continue to play a role in future higher education instructional design models. They are discussed in "Community Colleges Seen Leading in Instructional Use of Computers," an article in a 1992 issue of The Chronicle of Higher Education. For example, instead of using computers primarily for faculty research, community colleges are focusing on using the technology to further teaching skills. Computer networks on many community college campuses are more likely to be connected to students and faculty. A computer consulting firm president states that community college central computing budgets

are an average of 12 per cent higher for instruction than those
of universities are.

If utilized properly, repeated use of information technology
in the classroom can help to improve student understanding of
complex or difficult topics. Since many community colleges are
making a concerted effort to link students with faculty by
computer, personal two-way feedback can be established both
outside and inside of the classroom.

There are only a few side effects not immediately seen with
the increasing use of computers from a curricular perspective.
Some faculty who are set in their ways in the classroom may not
appreciate the intrusion brought about by this technology.
Administrators must gently but firmly point out that this type of
innovation is necessary to keep pace with other institutions.
According to the article, most institutions are conservative in
their approaches to selecting computers, often purchasing well-
known, tested equipment.

As a result, faculty can be more easily trained by those
familiar with the system. Those in charge of the implementation
process must maintain open lines of communication with faculty if
unforeseen problems arise with instructional and curricular
applications of the computers.

These are only some of the many possible examples involving
implementation and utilization of technology in educational

settings. Today, exciting teaching possibilities abound in the
burgeoning landscape of multimedia. What does the future hold
for instructional design and development of technologies that
have yet to be invented? In such future instances, it will be
important to remember that the technology of instruction matters
little if course content is weak.

References

"Community Colleges Seen Leading in Instructional Use of Computers." The Chronicle of Higher Education (1992).

"Identifying Predictors of High Risk Among Community College Telecourse Students." The American Journal of Distance Education (1991).

"Media and Classroom Performance." Walter Gill, Issues in African American Education, Winston-Derek Publishers (1991), pp. 84-86.

"Theme-Based Curricula: A Response." Susan Tyler Eastman, Feedback (Broadcast Education Association), Spring 1993, pp. 4-7.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC®

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: "Implementation and Utilization of Educational Technology."

Author(s): James E. Reppert

Corporate Source: Graduate paper presented for Educational Technology 578 (Instructional Design and Development), East Texas State University, Commerce, Texas

Publication Date: May 1995

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.
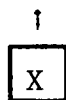
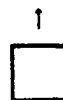| The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY ___Sample___ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 1	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY ___Sample___ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2A	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY ___Sample___ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2B
Level 1 ↑ [X]	Level 2A ↑ [ ]	Level 2B ↑ [ ]
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here,→ please

Signature: *James E. Reppert*

Printed Name/Position/Title: James E. Reppert
Asst. Prof. of Mass Comm.

Organization/Address: SAU Box 9229
Magnolia, AR 71753-5000

Telephone: 870/235-4258　FAX: 870/235-5005

E-Mail Address: jereppert@saumag.edu　Date: 6-15-99

(Southern Arkansas University)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2nd Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

-8 (Rev. 9/97)