ED351007 1992-11-00 Instructional Development for Distance Education. ERIC Digest.

ERIC Development Team

www.eric.ed.gov

Table of Contents

If you're viewing this document online, you can click any of the topics below to link directly to that section.

ERIC Identifier: ED351007
Publication Date: 1992-11-00
Author: Willis, Barry
Source: ERIC Clearinghouse on Information Resources Syracuse NY.

Instructional Development for Distance Education. ERIC Digest.

THIS DIGEST WAS CREATED BY ERIC, THE EDUCATIONAL RESOURCES INFORMATION CENTER. FOR MORE INFORMATION ABOUT ERIC, CONTACT ACCESS ERIC 1-800-LET-ERIC

This digest is based in part on DISTANCE EDUCATION: A PRACTICAL GUIDE, by Barry Willis, 1993.

INTRODUCTION

Instructional development provides a procedure and framework for systematically planning, developing, and adapting instruction based on identifiable learner needs and content requirements. This process is essential in distance education, where the instructor and students may share limited common background and typically have little face-to-face contact.

Although instructional development models and processes abound (see Dick & Carey, 1990; Gustafson & Powell, 1991), the majority follow the same basic stages of design, development, evaluation, and revision. While it is possible, even appropriate on occasion, to shorten the instructional development process, it should be done only after considering the needs of the learner, the requirements of the content, and the constraints facing both teacher and students.

THE DESIGN STAGE

The design stage focuses on gathering information to help understand the instructional gap between what is and what should be. Steps include defining the problem or need, understanding the audience, and identifying instructional goals and objectives.

In defining the problem or need, determine why the instruction is required, what external data verify the need, what factors led to the instructional need, and what past experiences indicate that the instruction being planned can effectively meet this need.

To better understand the distant learners and their needs, consider their ages, cultural backgrounds, interests, and educational levels. In addition, assess their familiarity with the various instructional methods and delivery systems being considered, determine how they will apply the knowledge gained in the course, and note whether the class will consist of a broad mix of students or discrete subgroups with different characteristics (e.g., urban/rural, undergraduate/graduate). When possible, the instructor should visit distant sites and interview prospective students, both individually and in small groups. This personalized attention will also show students that the instructor is more than an anonymous presence, linked by electronic technology. If on-site interaction is impossible, students should be contacted by telephone. Colleagues who have worked with the target population can also offer advice to the distance educator.

Based on the nature of the problem as well as student needs and characteristics, establish instructional goals and objectives. Goals are broad statements of instructional intent, while objectives are specific steps leading to goal attainment.

THE DEVELOPMENT STAGE

The first step in development is to create a content outline based on the instructional problem, the audience analysis, instructional goals and objectives, and an understanding of the desired course content. Next, the instructor should review existing materials. Instructional materials should not be used solely because they are readily available or have been effective in traditional classroom settings (see Beare, 1989). This is especially true if pre-packaged materials, such as telecourses, are being considered (see Earl, 1989). Whereas many pre-packaged instructional tools are developed and marketed to reach students with similar backgrounds and experiences, they may have little relevance for distant learners who come to the course with widely varied and non-traditional experiential backgrounds. If pre-packaged instructional materials are to be used, consider developing "wrap around" introductions, conclusions, and summaries that specifically relate the learning materials to the instructional context of the distant student.

Perhaps the greatest challenge facing the distance educator is creating student-relevant examples. Content, for the most part, is taught by using examples to relate the content to a context understood by the students. The best examples are "transparent," allowing the learners to focus on the content being presented. If examples are irrelevant, learning is impeded. This is a special challenge in rural and multicultural settings where the teacher's realm of experience and content examples may be foreign to distant learners. To address this problem, discuss potential content examples with a sampling of the target audience.

In critiquing course content and presentation strategies, find reviewers who have content expertise and experience teaching the target learner population. Use informal peer networks to identify these individuals and consult with local school teachers and community school personnel, who often cater to the needs of distant learners.

The development of instructional materials and selection of delivery methods will often require integrating voice, video, and data technology with print resources. The challenge here is to select instructional technology based on identifiable learner needs, content requirements, and technical constraints. For example, it does little good to rely on delivery technology that is unavailable or relatively inaccessible to some class members. If unusual delivery systems are required, make sure they are available to all distant learners to avoid having to create parallel learning experiences based on the different delivery systems available to class members.

THE EVALUATION STAGE

The primary purpose of evaluation is to provide information to decision makers. According to Brookfield (1990), the utility of educational evaluation is enhanced by immediacy, clarity, regularity, accessibility, and future orientation. With this in mind, there are two approaches to evaluation: formative and summative.

Formative evaluation is ongoing throughout the instructional development process and helps ensure that the course or instructional product will achieve its stated goals (Flagg,

1990). One evaluation method for the distance educator to consider is giving students pre-addressed and stamped postcards to complete and mail after each class session. These "mini-evaluations" might focus on course strengths and weaknesses, technical or delivery concerns, and content areas in need of further coverage.

Summative evaluation is conducted upon course completion and is used to determine the overall effectiveness of the class or instructional product. Summative evaluation usually focuses on student performance, course relevancy, learner attitudes towards the delivery methods used, and the instructor's teaching style and effectiveness. Following course completion, consider a summative evaluation session in which students informally brainstorm ways to improve the course. Consider having a local facilitator run the evaluation session to encourage a more open exchange of evaluative information.

Within the context of formative and summative evaluation, data are collected through quantitative and qualitative methods. Quantitative techniques rely on a breadth of response and are patterned after experimental research focused on the collection and manipulation of statistically relevant quantities of data. In contrast, qualitative evaluation focuses on depth of response and usually involves gathering more subjective data and anecdotal information from a relatively small, and possibly statistically insignificant, group of respondents. Guba (1978) identifies a number of qualitative methods for collecting evaluative data, including open-ended questioning, participant observation, non-participant observation, content analysis, interviews, and unobtrusive measures.

Qualitative approaches may be of special value to the distance educator because the diversity of students may defy statistically relevant stratification and analysis. The best approach often combines quantitative measurement of student performance with open-ended interviewing and non-participant observation to collect and assess information about attitudes toward the course's effectiveness and the delivery technology.

THE REVISION STAGE

There is room for improvement in even the most carefully developed distance-delivered course, and the need for revision should be anticipated. In fact, there will likely be more confidence in a course that has been significantly revised than in one that was considered flawless the first time through.
Revision plans typically are a direct result of the evaluation process in tandem with feedback from colleagues and content specialists. The best source of revision ideas may be the instructor's own reflection on course strengths and weaknesses. For this reason, revision should be planned as soon as possible after the course ends.

Often, course revisions will be minor, such as breaking a large and unwieldy instructional unit into more manageable components, increasing assignment feedback, or improving student-to-student interaction. On other occasions, greater revisions will be

needed. Revisions should be made according to priority, and significant course changes should be field-tested prior to future course scheduling.

To test revision ideas, contact and reconvene small groups of distant learners, content specialists, and colleagues, and ask them to review and critique the revision ideas being considered. Results of this process should be tempered by the knowledge that the characteristics of each distance-delivered class will vary and that revisions required for one learner group may be inappropriate for a different student population.

IN CONCLUSION

Adhering to sound principles of instructional development won't overcome all of the obstacles one encounters en route to developing effective distance education programs. It will, however, provide a process and procedural framework for addressing the instructional challenges that will surely arise.

REFERENCES

Beare, P.L. (1989). The comparative effectiveness of videotape, audiotape, and telelecture in delivering continuing teacher education. AMERICAN JOURNAL OF DISTANCE EDUCATION, 3(2), 57-66.
Brookfield, S.D. (1990). THE SKILLFUL TEACHER: ON TECHNIQUE, TRUST, AND RESPONSIVENESS IN THE CLASSROOM. San Francisco, CA: Jossey-Bass.

Dick, W., & Carey, L. (1990). THE SYSTEMATIC DESIGN OF INSTRUCTION (3rd ed.). Glenview, IL: Scott, Foresman, and Company.

Earl, A.W. (1989). DESIGN OF A TELECOURSE: FROM REGISTRATION TO FINAL EXAM. Paper presented at the Annual Conference on Emerging Technologies in Education and Training, Augusta, Maine, September 29, 1989. (ED 317 182).

Flagg, B.N. (1990). FORMATIVE EVALUATION FOR EDUCATIONAL TECHNOLOGIES. Hillsdale, NJ: Lawrence, Erlbaum Associates.

Guba, E.G. (1978). TOWARD A METHODOLOGY OF NATURALISTIC

INQUIRY IN EDUCATIONAL EVALUATION. CSE MONOGRAPH SERIES IN

EDUCATION, 8. Los Angeles, CA: University of California, Center for the Study of Evaluation. (ED 164 599).

Gustafson, K.L. & Powell, G.C. (1991). SURVEY OF INSTRUCTIONAL DEVELOPMENT MODELS WITH AN ANNOTATED ERIC BIBLIOGRAPHY. (2nd ed.). Syracuse, NY: ERIC Clearinghouse on Information Resources. (ED 335 027).

Willis, B. (1993). DISTANCE EDUCATION: A PRACTICAL GUIDE. Englewood Cliffs, NJ: Educational Technology Publications.

This digest was prepared for the ERIC Clearinghouse on Information Resources by Barry Willis, Statewide Director of Distance Education, University of Alaska System. November 1992.

This publication was prepared with funding from the Office of Educational Research and Improvement, U.S. Department of Education, under contract no. RI88062008. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or ED.

—

Title: Instructional Development for Distance Education. ERIC Digest.
Note: Digest based in part on "Distance Education: A Practical Guide" (Barry Willis, 1993).
Document Type: Guides---Non-Classroom Use (055); Information Analyses---ERIC Information Analysis Products (IAPs) (071); Information Analyses---ERIC Digests (Selected) in Full Text (073);
Descriptors: Delivery Systems, Distance Education, Educational Objectives, Educational Technology, Evaluation Methods, Formative Evaluation, Instructional Design, Instructional Development, Instructional Systems, Material Development, Models, Needs Assessment, Summative Evaluation
Identifiers: ERIC Digests
###

—

[Return to ERIC Digest Search Page]