

# Redesign of a Graduate Program in Instructional Design, Development, and Evaluation (IDDE)

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## Introduction

Program and instructional developers do not, as a rule, publicly document their efforts. In most cases, the clients of successful developers, rather than the developers themselves, prepare and disseminate manuals, reports, or articles for use in a defined field or context.

This article, however, is not written by a developer's client. It was prepared by representatives of two groups of instructional development-oriented professionals—a graduate academic program and a university academic service support center. It details the evolution of a new instructional design curriculum at Syracuse University. Briefly, the article serves the following purposes:

*Supplement to Required Reports*—Both the graduate program and the academic support center are required to submit annual reports of activities to various deans and vice chancellors. This article will supplement both reports.

*Program Development Justification*—Careful description of faculty contri-

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butions to the graduate program is required so that well-informed decisions can be made about promotions, tenure, and salaries. In addition, top-level academic administrators for both groups represented in this report can be kept aware of the support center's contributions to university program development. Moreover, the University Senate Finance Committee is always searching for sources of faculty salary money—particularly from those without substantial justification for existing.

*Documentation for External Audiences*—Growing numbers of requests for description and justification of the academic program suggest that state education department doctoral review committees, as well as AECT accreditation and certification efforts, will continue. This article provides the opportunity to describe the current status of one program to colleagues in similar programs, perhaps generating communication that will result in further improvements.

*Reimbursement for Services and Resources*—Rare is the occasion when instructional developers receive public credit for accomplishing impossible missions. One would hope that the acknowledgment herein of the superb services the support center offers will lead to additional backing. This article also provides a vehicle for thanking other academic programs for sharing their graduate survey data, internship procedures, and other types of program guidance.

## Overview

How does a graduate program that purports to prepare professionals as instructional improvement researchers and practitioners decide what to teach and how to teach it? The Instructional Design, Development, and Evaluation (IDDE) program at Syracuse University is now completing a 24-month self-assessment that includes reviews of training and educational needs, curriculum analysis, and critiques by graduates in the field. The University's Center for Instructional Development has been heavily involved as an "external" development agency in designing and guiding the assessment program.

The immediate result of the assessment has been a redesigning of the graduate curriculum. Issues such as the academic and scholarly requirements

for doctoral studies have been balanced with requirements for fieldwork necessary to prepare the graduates to practice professionally. Special consideration has been given to theory, research, and inquiry skills and their relationships to applied design, development, and evaluation experiences. The result, to date, is a program that attempts to integrate the varied skills and interests of the faculty, the curriculum design requirements, the field experiences available to students, the projected job market, and the student applicant pool.

This report will outline the rationale behind designing a new curriculum. A major aim of the discussion will be to address the question of why increasingly scarce resources have been invested in revising the curriculum, improving support systems, and developing new courses. By describing the procedures employed in effecting changes not yet completed, this article will attempt to photograph verbally a moving object that is finally slowing to a comfortable jogging tempo.

The rationale for making a change in both program goals and procedures is presented in the following section. Significant internal and external factors currently influencing the program and the field are next described so that readers can judge the wisdom of faculty and developer decisions. The fourth section presents a brief portrayal of the program's general focus and goals, with subsequent sections outlining procedures and results. The final section includes comments about inter- and intrainstitutional relationships that serve to promote or hinder the advancement of the field.

## Rationale for Change

Of the many factors that influence graduate instructional development programs, several hotly discussed but not clearly articulated issues predominate. The concerns to which faculty respond most strongly are especially important because they constitute the bulk of the "constraints and capabilities" considerations that drive program redesign. For convenience, the issues have been separated into those common to most instructional technology (IT) programs in the country and those relatively idiosyncratic to the Syracuse program.

## Factors Common to Many IT Programs.

Issues that currently influence many graduate programs in the field include those two demons, inflation and declining conventional student populations. Even well-endowed institutions are feeling the pinch, for they, too, must raise tuition to keep salaries competitive, thus risking further declines in the student population. At Syracuse, for example, a 5% faculty salary raise requires a 7½% tuition increase, and tuition already is at an all-time high. Immediate solutions to such dilemmas, if identified, have not been widely publicized. One short-term solution for some university programs appears to be a policy of severely limiting the number of courses students can take outside the home program. If IT programs ever adopt this strategy, it will suggest that we have exceeded our useful and productive life as the great integrator of skills, concepts, and perspectives.

Additional concerns facing IT programs include the rather dramatic changes in job prospects and skill requirements. Combined with general declines in conventional student populations, these changes create challenges—and opportunities—for us all. An increasing diversity of students appears to be common, including a higher percentage of females, more mid-career or second-career students, and more international students, of whom much is expected when they return home. Perhaps of even greater importance to the future of all IT programs is the dramatically shifting job market. Where once the typical graduate looked to media professional positions in secondary or postsecondary settings, the range of jobs available now resembles a high-caliber smorgasbord. In addition to a still healthy demand for instructional researchers and teachers in academic and research and development (R & D) centers, as well as for professors of educational technology, the new market includes openings for (a) trainers and training developers in business and industry; (b) instructional designers, developers, and evaluators in higher education, government, health, and international settings; and (c) project and program managers for various types of instruction and training.

## Idiosyncratic Influences

The current description for the IDDE program in the Syracuse University graduate catalog offers a formal state-

ment of the program's purpose and scope:

The academic program in IDD&E focuses on the systematic research, evaluation, design, and development of educational materials and programs. Courses are offered in the areas of instructional development, educational research design and methodology, message design, media production, evaluation of materials and programs, and theories of instruction and learning. Students are encouraged to prepare themselves with development and management skills for use in educational settings such as instructional development or training centers. All students receive training in research and evaluation skills for use either in the design of instruction, program management, or in postsecondary research and teaching.

How did this program, which in many ways reflects the changes in the field nationally, evolve at Syracuse University? Instructional technology came to Syracuse in 1937 with the establishment of an educational film library. In 1943, an audiovisual service was established at the University. The graduate instructional technology program, one of the first in the United States, was instituted in 1948, with the first doctoral degree awarded in 1951. Meanwhile, both the academic program and campus support services were housed within the Center for Instructional Communications.

During the 1950s, educational film making and audiovisual production were emphasized in the graduate program. As the repertoire of tools available to the instructional technologist expanded during the 1960s, the Syracuse program also expanded, along with collaborative IT programs in a consortium consisting of Indiana University, Michigan State University, University of Southern California, and the Teaching Research Division of the Oregon State System of Higher Education. Applied learning theory and programmed instruction spurred the trend to examine in depth the inherent problems of particular educational settings. Systematic design of instruction incorporated the media as teaching tools. Reflecting these developments, the official title of the academic program at Syracuse was changed during the sixties from Instruc-

tional Communications to Instructional Technology. At the same time, the much-expanded campus services program was formally placed under the purview of the vice chancellor for academic affairs and given the title of Center for Instructional Development (CID).

The field of instructional technology and development has expanded into one of the primary articulators of ends and means for instruction. The Syracuse program, like many others, reflects the growing emphasis upon design, motivation, diffusion, evaluation, management, and cost-effectiveness. Currently, the academic program, renamed Instructional Design, Development, and Evaluation in 1978, stresses the study of analytical tools and procedures applied in an ever-expanding range of settings. These changes in emphasis were made despite the fact that no comprehensive plan for the program had been completed during the previous 10 years because both the field and program leadership had changed so frequently. However, a combination of the local issues and national concerns facing IT programs convinced faculty and administrators 2 years ago that comprehensive program redesign was in order. Several of those issues merit brief discussion.

*Maturing Faculty*—New faculty joined the Syracuse program in the past decade, and their strong and substantive areas of expertise needed to be blended into the overall curriculum.

*Curriculum Influences*—Individual faculty members increasingly felt the importance and utility of instructional science, management science, and systems theory as program components, in addition to the traditionally important areas of educational research, media production, and instructional delivery systems.

*Discrepancy Between Theory and Practice*—Academic requirements for meeting doctoral degree criteria always have been of some concern for those planning careers as field-based professionals. With the growing demand for designers, developers, and evaluators to work in nonacademic settings, even greater discrepancies were possible between academic requirements and nonacademic professional practice.

*State Doctoral Program Review*—As part of its academic program monitoring responsibility, the New York State Education Department schedules

infrequent reviews of graduate programs. When it became apparent that some members of the state bureaucracy had difficulty differentiating among instructional technology, audiovisual aids, and driver education, the Syracuse program decided that a relatively careful and articulate self-study was in order.

*Development of a Joint School Media Specialist Master's Degree Program*—In addition to conducting substantive and thorough reviews of doctoral programs, the state also requires all programs leading to public school certification to be competency-based. One option at Syracuse was to develop separate master's programs for school librarians and audiovisual specialists. Since the audiovisual positions available in the schools require combined skills and experience, the already uncommonly positive relationship with the School of Information Studies was tapped to obtain external funding to create a joint, competency-based program for school media specialists. This project required careful analysis of the skills, knowledge, and experience required by media specialists, as well as extensive consideration of alternative assessment strategies.

*Center for Instructional Development Priorities*—Changing roles and priorities of the center and several of its new key staff had marked influences on both the course offerings and the faculty requirements for the academic program. Formalization of financial policies and policies governing the appointment of professional associates created greatly expanded opportunities for IDDE students, CID staff/professional associates, and full-time faculty to team teach, create practica and internships, and conduct meaningful research, development, and evaluation studies on campus. It also relieved the academic program of several important academic responsibilities, thus freeing up salary resources for investment in other high-priority areas.

*Integration of Recruitment, Admissions, Financial Aid and Placement*—New kinds of students, new restrictions on entrance testing by the state, high tuition rates, and many new kinds of prospective employers for graduates contributed additional noise to a system already well endowed with static. While redesigning the curriculum, it seemed sensible at the same time to redevelop catalogs, forms, and review

procedures, together with expanding the placement services for graduates and alumni.

*Support and Modeling from ERIC*—The ERIC Clearinghouse Center for Information Resources, an externally funded national project, is an integral part of the academic program and provides continuing impetus for change. In addition to offering support to students, it furnishes state-of-the-art information and techniques that serve as models, and as inspiration, for many programs. This is particularly true in the center's growing number of computer-related management and communications applications.

### Program Focus

It is likely that most of the 159 institutions currently being surveyed by AECT's International Division for its annual report will be able to supply information on courses and programs in educational communications and technology. What may not be revealed by this (or perhaps any written) survey are the values and priorities imbedded within a program in our field. Numbers of courses in a particular area or special expertise of individual faculty members may imply curricular orientations but not underlying program goals. Because the long-range career aims of the graduates of a program are difficult to formulate and are not likely to be well communicated, the chief responsibility for articulating the values of a program falls upon the faculty. Several program characteristics of particular importance to the faculty at Syracuse had a powerful influence on the redesign planning efforts and are fairly evident in the operation of the current program.

Since the focus of the field has historically been on the practical, to stress the "how, when, where, and how well" of the profession is commonplace. The challenge for us has been to emphasize an equal or even greater concern for the "why's." Perhaps the best illustration is our expanding emphasis on instructional design or instructional science. A prescriptive approach to the design of learning and training programs requires sound rationale and a conceptual base for making decisions. Without these, it is difficult to entertain or to answer the "why" questions.

The development of leadership is the second major characteristic judged to be of particular importance to our pro-

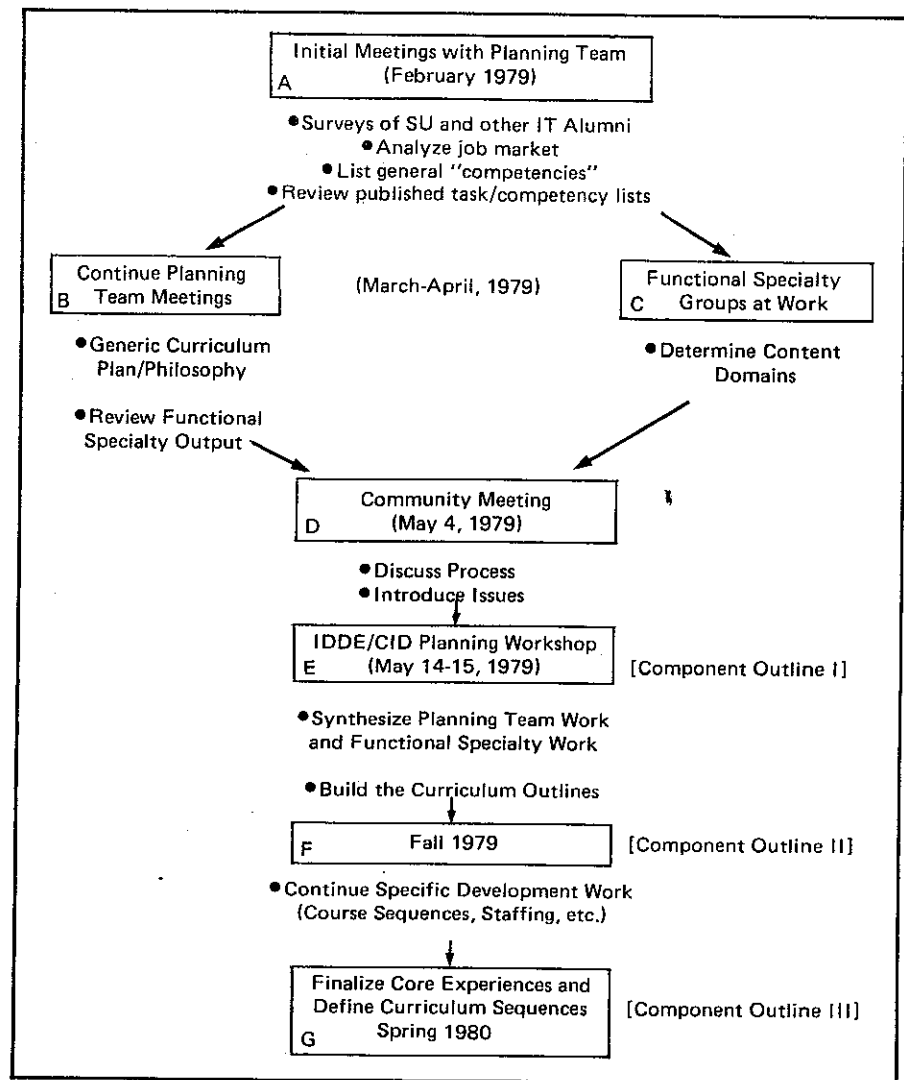


FIGURE 1. Curriculum development plan for the Instructional Design, Development, and Evaluation program by the Center for Instructional Development.

gram. Our literature and course work related to interpersonal communications, coordination, articulation, scheduling, needs assessment, problem solving, and change suggest that a responsive service posture for our future professionals will hinder rather than foster the development of leadership qualities. Proactive management and leadership perspectives require not only clear explanations of purposes and outcomes but good models as well. In this context, good modeling encompasses the inclusion of the student in decisions on admissions, financial aid, and faculty selection, as well as in work on consulting teams for practice as developers.

A final concern is professional "income," as measured not in economic terms but in important proxies such as satisfaction, pride, and sense of mission, feelings often translated into a general

concern for the quality of life—for client and society, as well as for self. The development of all the above characteristics is the underlying focus of our program—thus the concern for these items during our redesign efforts.

### Redesign Process

Rather than present a narrative description of the procedures employed and decisions reached during the redesign phase, a series of component diagrams will be used as the primary vehicle of communication, with comments added where necessary. Figure 1 shows the schedule for program redesign. Each box represents an important event or series of activities that illustrates the process of redesign. Comments or component diagrams for each box follow.

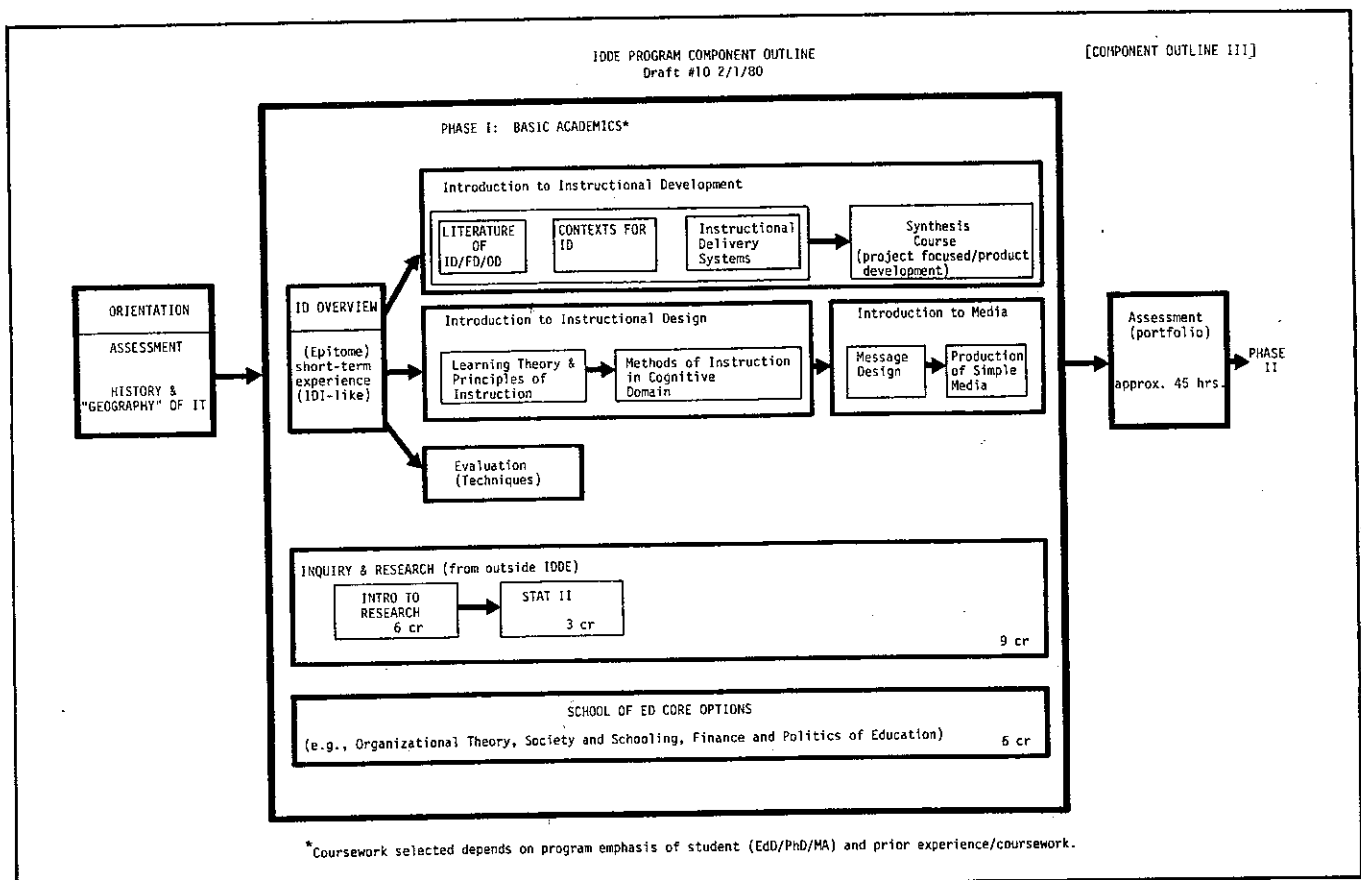


FIGURE 2. IDDE curriculum overview.

*Box A. Initial Meetings with Planning Team.* A planning group, consisting of IDDE faculty and students as well as CID representatives, began the project by setting meeting dates and locations, together with prescribed tasks. The ongoing state doctoral program review and the school media specialist program development endeavor contributed considerable information to the planning team, including the survey of IDDE graduates, refined competency lists, reviews of previous and current placement opportunities, and critiques of internal operating procedures. Particularly useful sets of information and procedure guides were solicited from other graduate programs. These included admissions and graduate survey data and competency lists from Florida State University, internship policies and procedures from Michigan State University, and several reported surveys of graduate IT programs conducted by AECT divisions and members. All served to inform the team members about potential components of an ideal program before they considered operational constraints.

Once the preliminary plans and general specifications for the project

were completed and reviewed, additional faculty and students were recruited to assist in detailed planning (Box B) and content/skill analysis (B and C). This allowed all faculty to make meaningful contributions in areas of special interest and to consider major issues related to curriculum sequences, assessment strategies, and overall instructional strategies.

*Box B. Continued Planning Team Meetings.* The expanded team sessions reluctantly moved away from outlining the ideal program into considerations of prerequisites, prior course work and experience, admissions, and advising. One primary purpose of these sessions was to foster open, involved dialogue and teamwork on well-specified tasks, with time frames fixed and maintained by CID developers. Healthy conflicts surfaced during these sessions when decisions were made about such issues as the relative importance of design compared to that of development and the role of evaluation in the curriculum.

*Box C. Functional Specialty Groups.* In order to make the best use of the surveys, competency reviews, and in-

formation shared by other programs, groups were organized around functional specialty areas. These groups concentrated on areas such as instructional research and theory, instructional development, and media production and utilization. Initial tasks included clustering of content, goals, skills, values, and contexts so that meaningful blocks of instruction and learning outcomes could be defined. Dubbed "clump analysis" by developers concerned about the mixing of unlike commodities, the clustering nevertheless greatly aided the later content and learner task analysis conducted by the functional specialty groups. Emphases within specialties were determined by each small group, but relative emphases across specialties were decided in later full planning team sessions (Box E).

*Box D. Community Meeting.* The first progress report was presented at an open meeting of the IDDE community. Although scheduled during spring semester finals week, topics such as new core courses for all degree programs, required course sequences, and a revised instructional science arrangement drew an attentive, supportive audience.

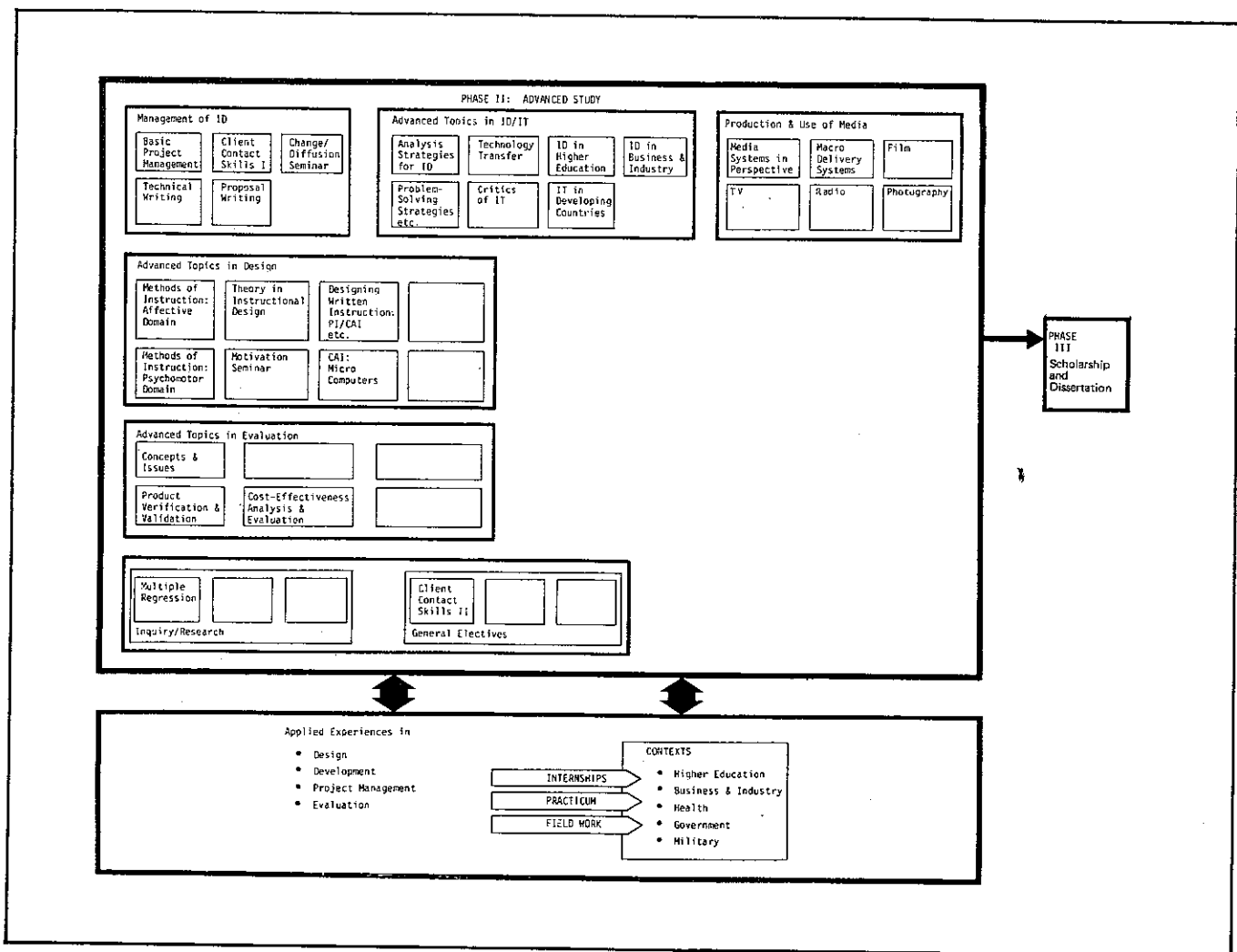


FIGURE 2. IDDE curriculum overview. (Continued)

Selected student involvement from the beginning, including the use of CID development interns, helped ensure consumer input on the adequacy, sufficiency, and fairness of the changes under discussion. It also helped recruit additional student enrollees for the following fall semester's practicum courses, which created actual course outlines, syllabi, assessment schemes, and, in some instances, study guides (Box F).

*Box E. IDDE/CID Planning Workshop.* A final 2-day marathon meeting was held to finalize agreements, resolve remaining conflicts about arbitrary curriculum sequence and content emphasis, and develop the first of many component outline drafts. This initial draft included several of the key assumptions about the ideal program but did not yet differentiate between such issues as master's versus doctoral requirements or relative curriculum

weighting across or within functional areas.

*Box F. Fall 1979.* The results of the spring planning workshop allowed a small team to continue working during the summer so that an expanded second component outline could be ready for review in the early fall. Credit hour estimates were included as indicators of student time and energy requirements. This outline allowed several practicum groups to analyze quickly the functional specialty "clump analysis" results and begin to detail content outlines, define quasi-behavioral student outcomes, and specify evaluation and assessment criteria and procedures.

*Box G. Finalize Core Experiences and Define Curriculum Sequences.* By the beginning of the second semester, approximately one year after the initial planning meetings, a detailed three-phase curriculum overview (Figure 2)

had been prepared. This outline identified in detail the basic components of the doctoral program, which included most of the elements required for defining the master's and specialist programs. Not all sequences, prerequisites, and credit hour weighting had been specified, but the basic blueprint was now ready for the specialists to flesh out.

*Figure 2.* Several of the components identified in Phase I, for example, were inquiry, research, and foundational experiences currently being offered or developed in programs outside of IDDE. Once identified, these programs were offered suggestions about appropriate scheduling of courses, since IDDE students could, at times, comprise a significant portion of course enrollments. This communication has led to joint efforts to avoid schedule conflicts and to offer appropriate advanced graduate courses during the summer sessions.

Additional results of this process are discussed briefly in the following section.

## Results

Although the redesign process is not yet completed, major program curriculum decisions and agreements have been made. Course outlines and instructional components such as modules and lesson guides have been completed and tested for many of the core courses. Advanced seminar courses and several of the courses identified in Phase II (Advanced Study) sections of Figure 2 always will require considerable revision in content and delivery since the topic areas are less stable than others in the field.

Relationships with professional associate faculty (primarily CID professionals) and external academic programs have been improved considerably now that definable program goals and sequences are public knowledge. Moreover, joint master's and doctoral programs, dual faculty appointments, team teaching, and joint recruiting ventures have been facilitated. Our response to the twin demons of inflation and declining enrollment thus has been to press for integration of curricula with collegial programs such as higher and adult education and to have data supporting the instructional productivity of individual faculty and the program as a whole. Although it is increasingly difficult to present any data as powerful as those describing student credit hours generated, evidence of quality instruction and a substantive curriculum helps argue the case for new faculty, for salary increments, and for improved facilities. (Syracuse visitors can identify easily which of the three has not yet been accomplished.)

## Implications

There is growing evidence that, at long last, education and training no longer will be justified by arguments for socialization, entertainment, and work place queing. For example, as a labor and cost intensive activity, the press for evidence of the productivity of training requires skilled professionals capable of assessing the efficiency and effectiveness of well-designed and implemented interventions. Who better to provide

this service and leadership than knowledgeable developers or instructional technologists? This is especially true when developers can use evaluation or assessment as the entrée for development.

The evidence at Syracuse suggests that other schools and programs are realizing the relevance of our field for their graduates. In several instances, the reverse also is true, and IDDE students are enrolling in international development and policy analysis courses (Maxwell School of Citizenship and Public Affairs) or in strategic planning and institutional research courses (higher and adult education) as part of their programs. Cross program enrollments existed prior to redesign, but rarely were these experiences well integrated or supported. Now there is growing support for cross enrollment not simply because it makes sense economically, but because it is a necessary component of well-designed graduate programs.

To suggest that all is now well under that blanket of Syracuse snow would be misleading. There always will exist a healthy tension between the academic and the practical. If ever the IDDE program, the Center for Instructional Development, and the graduate school agree without reservation about the relative emphasis to be placed upon theory, inquiry, development, production, and interpersonal skills, then we will have failed as academics and developers. There never will be enough time or other resources for master's or doctoral candidates to learn all that is necessary to become accomplished

professionals. The compromises made during redesign forced us to consider what was absolutely necessary, what was important for many, and what was important for particular faculty members and their doctoral students. The promise made to all was that we would not have to do this again at least until 1984. But then over lunch we started discussing the best way to help future developers practice their interpersonal skills, and that suggested a new practicum arrangement and . . . .

### Particularly Useful and Obtainable References Employed in IDDE Program Redesign

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