

Instructional Designers in Public Schools and Higher Education: Predictions for the Year 2001

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Abstract. This article describes the roles instructional designers are likely to be playing in public schools and higher education in the year 2001. Also put forth is a prediction regarding teacher use of instructional design principles.

In this article, I make some predictions about the roles instructional designers are likely to be playing in public schools and universities in the United States in the year 2001. However, before predicting what designers will be

doing in the future, it would be a good idea to describe, in general terms, what instructional designers are doing *now*, in 1988. Today, as was the case more than 15 years ago, instructional designers are identifying instructional problems and systematically designing, developing, implementing, and evaluating solutions to them. It is quite likely that instructional designers will continue to perform these tasks for at least the next 15 years.

If, in general, instructional designers will be performing the same tasks in 2001, will they be performing them in public schools and universities? If so, what will be the extent of their involvement in these organizations? And what else will they be doing in these settings? To answer these questions, let's look at each setting separately.

Instructional Design in the Public Schools

Before discussing the roles that instructional designers will be playing in the public schools in the year 2001, it is important to ask, "Will there *be* any instructional designers in the public schools in the year 2001?" This is not a facetious question. How many public school systems in the United States today have instructional designers on their payrolls? I doubt that you can identify a dozen school systems that do. Perhaps most school systems employ some CAI specialists and evaluation specialists, but most of these people perform very few of the functions an instructional designer would be expected to perform.

If there are few designers working in school systems today, what is the likelihood that there will be more of them in 2001? I don't think it is very great. Just look at the recent reports on the status and future of schools in the United States (e.g., National Commission on Excellence in Education, 1983). Although many problems are identified, instructional designers are not mentioned as possible solutions. Instead, the emphasis is on more time in school or more teachers.

Even in the recent report by the National Task Force on Educational Technology (1986), little attention is given to the role instructional designers might play in solving the problems facing the schools. Instead, the emphasis is on increasing the extent to which computers are used for instructional purposes. One should *not* assume that the in-

Editor's Note

The five articles about future projections for the instructional development professions that appear in this issue of the *Journal of Instructional Development* are based upon papers presented at the annual meeting of the Association for Educational Communications and Technology in Atlanta, 1987. The articles by Bratton, Knirk and Reiser were presented at a symposium organized by Kent Gustafson. The articles by Bowie and Schwen were solicited for this issue of the journal by Kent Gustafson. Bowie's article is an extension of a paper that Gustafson presented at the AECT symposium. Schwen's article is a commentary on the four futures projections and his views of the profession in the year 2001.

creased use of computers in the schools will necessarily result in an increased demand for instructional designers as well. Just as in the past, when other media were the rage, the emphasis is on getting the medium (i.e., computers) into the schools rather than on identifying the instruction that should be presented via that medium and then designing that instruction.

On the positive side, the profession's lack of impact on public education has become a growing concern among many of us who are training the instructional designers of the future. Evidence of this concern can be found in the fact that a recently formed professional organization, the Professors of Instructional Design and Technology, has given considerable attention to this issue (Carrier, 1986; Reiser, 1986). Also, several leaders in the field of instructional technology have recently called for instructional designers to become more involved in solving the problems of the public schools (Rossett & Garbosky, 1987; Salisbury, 1987; Schiffman & Gansneder, 1987). However, concern on the part of members of our profession does not necessarily translate into action. Hence, by the year 2001 there may be more media in the schools, but it is unlikely that there will be more instructional designers there.

On a brighter note, a greater percentage of teachers in the public schools will be aware of, and perhaps use, some basic instructional design principles. This is likely to come about because of a trend toward placing greater emphasis on teaching basic instructional design concepts in preservice teacher education programs. For example, in recent years several textbooks focusing on how to employ basic instructional design principles in the classroom have been written expressly for preservice teachers (e.g., Dick & Reiser, in press; Gagne & Driscoll, 1988; Sullivan & Higgins, 1983). Furthermore, basic texts in educational psychology (e.g., Good & Brophy, 1986; Woolfolk, 1987) seem to be giving more attention to such instructional design principles as the need to specify objectives and the need to have tests that match those objectives.

In addition, some states, Florida and California in particular, are requiring that textbooks be evaluated and revised before they are considered for state adoption. In Florida, attempts are also

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being made to teach teachers how to select instructional materials on the basis of criteria such as instructional effectiveness, rather than solely on the basis of aesthetic criteria such as the number of pictures per page (Dick, Berquist, & Vedros, 1987).

In summary, in the year 2001 it is likely that teachers in the public schools will pay more attention to design principles, but it is unlikely that the school systems will employ many instructional designers.

Instructional Design in Higher Education

As was the case with the previous discussion, in considering the roles of instructional designers in colleges and universities in the year 2001, it is appropriate to first ask, will there be any instructional designers in colleges and universities in the year 2001?

On the negative side, the results of a survey conducted a few years ago (Gustafson & Bratton, 1984) revealed that the number of instructional improvement centers in higher education had substantially decreased since the mid 1970s, and today there are no indications that this trend will reverse. On the positive side, at least instructional designers now have a foothold (or perhaps it's only a toehold) in higher education, and it is likely that a fair number

of instructional improvement centers will survive into the twenty-first century.

But what will designers be doing in instructional improvement centers in 2001? How will this role be different from the role designers play today?

One skill that is likely to become more important for designers working in higher education is the ability to manage instructional development projects. There are at least two reasons that instructional designers will have to become better managers. First, as has been the trend since 1975 (Gustafson & Bratton, 1984), budgets for institutions of higher learning are likely to remain tight. Therefore, instructional designers will have to carefully manage and account for the few resources they are given. Second, instructional designers in higher education will place more and more reliance on contracts and grants to support their efforts. According to Gustafson and Bratton (1984), in recent years approximately one-third of the funding for instructional improvement centers in institutions of higher education has been provided by contracts and grants, and the percentage of centers engaged in soliciting contracts and grants has recently increased. If, as I anticipate, this trend continues, instructional designers will have to become more and more adept at preparing budgets and managing and monitoring large- and small-scale projects. Some of these skills are likely to be taught in graduate programs in instruc-

tional technology, but, as is already the case in some programs, students may be required to take one or more management courses in colleges of business.

Not only has there been an increase in the percentage of instructional improvement centers seeking external support, there has also been an increase in the percentage of centers helping other departments at their institutions prepare grant proposals (Gustafson & Bratton, 1984). These trends lead me to believe that instructional designers in higher education will have to become more adept at the art of proposal writing.

In addition to seeking money to help them run their centers, it is also likely that instructional designers in higher education will have to demonstrate that the money allocated to maintain their centers has been well spent. Gustafson and Bratton (1984) report that few centers collect cost-effectiveness data. They also report that when instructional improvement centers cease operation, it is usually for financial reasons. It seems likely that these two facts are related. It is not surprising to find that during financially troubled times, administrators in higher education tend to eliminate service organizations that cannot demonstrate their value.

The lesson here is that instructional designers in higher education must start evaluating the cost-effectiveness of their efforts. If these evaluations are

to take place with greater frequency than is currently the case, then students in instructional design programs will need to receive more training in such areas as program evaluation and cost-benefit analysis.

One area in which instructional improvement centers can prove to be very valuable is competency testing. In many states, student competency testing is now a routine part of the K-12 public school education process. In some states, this concept is being adopted by public institutions of higher education. For example, in Florida, students who have completed a two-year junior college program must pass a competency test before they can be admitted to a four-year school. As requirements such as this one become more common, it is quite possible that members of the professional staff in instructional improvement centers will be called upon to help create the tests students will be taking. Thus, in the future it is likely that measurement skills will become a more important part of the instructional designer's repertoire.

In the future, instructional designers will also have to become more adept at designing and producing mediated instruction. Although many designers, myself included, prefer to think of instructional technology as a systematic planning process, educators outside of the design field often think of instructional technology as media. Thus, instructional improvement centers are

often called on to plan and produce mediated instruction (Gustafson & Bratton, 1984), with the emphasis usually being on production. In the future, as the number of new instructional hardware technologies increases, it is likely that the demand to produce instruction that makes use of new technology will also increase. Thus, there will be a greater demand for designers who can design and produce (or monitor the production of) instruction that can be delivered with the latest hardware technology.

In the future, although the demand for mediated instruction is likely to increase, the need for good interpersonal communications is bound to remain strong. Recent surveys indicate that instructional design practitioners working in a wide variety of settings emphasize the importance of having good interpersonal skills (Redfield & Dick, 1984). These skills enable the designer to work effectively with subject matter experts, administrators, and other members of design teams. These skills will continue to be among the most important in the future.

In summary, I expect that instructional designers will still play a role in higher education in the twenty-first century. However, their role is likely to be different from the role they are playing today. Designers will have to become more adept at preparing proposals and budgets, managing and monitoring projects and resources, and evaluating the cost-effectiveness of their efforts. In addition, designers will be asked to help design competency tests and will continue to be called upon to produce mediated instruction, so measurement and production skills will be an important part of the designer's repertoire. Finally, good interpersonal skills will continue to be crucial to the instructional designer's success in higher education.

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Conclusion

Except for a brief spurt of activity in higher education in the early 1970s, instructional designers have not played a major role in higher education or in the public schools. As much as I would like to see this situation change, I don't foresee this happening by the year 2001. For once, I hope I'm wrong.

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