ABSTRACT
        This paper describes the selection process of 17
articles for inclusion in the book, "Classic Writings on
Instructional Technology." The book brings together original
"classic" educational technology articles into one volume to document
the history of the field through its literature. It is also an
attempt to make available articles that traditionally have been
difficult to obtain. The final selection of articles, all considered
the "core" of the literature and all published in the United States,
represents a combination of the compilers' personal favorites, the
votes of professional colleagues, and the input of students who will
be the intended audience. Each article is representative of the
contribution made to the field of educational technology. A table of
contents lists the articles contained in the book, organized by the
following headings: (1) Definition and Conceptual Background; (2)
Design and Development Functions; (3) Delivery Options; and (4) The
Profession. (SWC)

ED 397 791

Title:

Classic Writings On Instructional Technology

Authors:

Donald P. Ely

and

Tjeerd Plomp

IR017979

196   2

Most books are stimulated by events or needs experienced by individuals. The preparation of *Classic Works on Instructional Technology* was no different. The editors participated in the design of an educational technology curriculum at the University of Twente in The Netherlands in the early 1980s. In an attempt to describe the content of a new curriculum, a review of the literature was necessary. Questions about the "core" literature, "seminal" works and the "roots" of the field led to a search that continues today.

About the same time, one of the editors was teaching a course on Perspectives of Educational Technology, a graduate seminar that attempted to communicate the "geography" of the field--the conceptual contributions of the people, the events, the legislation, the ideas, and the movements that have helped to shape the profession. Logical resources for such an endeavor are the publications of the field--the written history of the profession. The next step is to ask: "What publications are the 'classics' of the field--those books and articles that have withstood the test of time and are still read and quoted?" Mark Twain described a classic as "something everyone wants to have read and nobody wants to read." What would happen if you were to create a list of classics?

Even when a reasonably satisfactory list is created, how does one locate the articles themselves, many of which have disappeared over the years? Sometimes a colleague has squirreled away a copy in a personal archive or a library still has the paper copy or a micofiche. Wouldn't it be helpful if all these classic works could be brought together in one volume? At least it would save searching for articles that are now obscure. If might also help to document the history of the field through its literature. This book is an attempt to make such important articles readily available. It also attempts to provide a partial conceptual history of the *primary* works that often are side-stepped for more recent interpretations of the older gems. When historians do history, they go back to the original sources, not secondary interpretations and digests. The editors have attempted to collect the original articles that are difficult to find. They are the original works--the primary writings upon which many of today's ideas are based.

The Selection Process

What initially seems like a fairly routine task becomes a nightmare because each educational technology professional has his/her own ideas about which articles are "classics". The process began with one editor preparing a list based on his own experience and the frequency of citations in major works such as the histories of Reiser (1988) and Saettler (1990) and encyclopedia articles of Eraut (1985) and Clark and Solomon (1986). When the second editor joined the team, there was agreement on more than half of the original titles and suggestions for alternative and additional titles. The list was still too long and there was some disagreement about some of the titles. Clearly, a broader perspective was needed. A list of 35 tentative titles was sent to 40 individuals who were members of the Professors of Instructional Development and Technology (PIDT) group in the United States and several leaders in European countries who teach courses in which the publication might be used.

Respondants were asked to nominate other titles that should be considered for inclusion the the collection. More than 30 individuals reacted to the original list of titles. There was a high level of agreement on about half the titles and suggestions for 36 more works, a half dozen of which were mentioned more than once. Several new perceptions and ideas that would influence selection emerged from the comments of the respondants:

* There are books that ought to be considered classics. The authors felt that a representative article or a chapter from a book could be included in the collection. For example, Gagne's *Conditions of Learning,* (1965) uses a surrogate article. "Learning Heirarchies (Gagne, 1968) " that communicates the conceptual essense of his books.

* North American educational technologists are much less familiar with articles published in Europe; for example. Davies (1978). The authors felt that their combined experience in North America and Europe was sufficiently valid to make judgements about selecting European articles even though they were relatively unknown in North America.

* Despite descriptions and instructions about the classics and the criteria for expressing opinions, many respondants wanted articles that were more "up-to-date". Many felt that there were more recent publications that better represented contemporary thinking. For example, several respondants recommended using the new Association for Education Communications and Technology definition (Seels and Richey, 1994) rather than the 1977 AECT definition. Of course contemporary thinking is better represented by the 1994 publication than the 1977 work but it is difficult to call a recent publication a classic! The authors had to veto the suggestions for more contemporary listings because they would violate the basic premise that the articles are "...first to introduce the concept;" and "...often quoted as a primary reference..." as indicated in the list of criteria.

* The number of new titles introduced by the respondents caused some reflection by the authors. Clearly, all of them could not be added but some initial titles could be dropped in favor of suggestions that seemed to make more sense. Several changes were made as a result of this input.

A further check on the utility of the proposed articles was their use in a graduate seminar held just before the final selection was made. Students read and reacted to a wide spectrum of articles, many of which were on the original list. They expressed their opinions regarding the value to them as they were about to enter the profession. Their opinions added useful input and a "reality check" since they represented the ultimate users for whom the book is intended.

The table of contents sent to the publisher ultimately contained 30 articles of various lengths. The publisher's review of the text when adjusted to a uniform typographical format indicated twice the number of pages that had been estimated. At this point, retention of items was based on several criteria: (1) difficulty of access; (2) older items; (3) "core" of the literature; and (4) published in the United States (since the primary users would be in North America). This wrenching task left 17 of the 30 articles.

The conclusion, based on the experience of the selection process, is that each educational technologist has his/her own list of "classic" articles from the professional literature. This idiosyncratic opinion is based on such factors as the university in which graduate study was done, courses taught by the individual and the satisfaction received from a specific publication at one time or another during one's professional career. The final decision as to what to include is a mix of the authors' personal "favorites," the "votes" of professional colleagues and the input of students who will be the readers of this volume.

Organization of the Book

There is no one conceptual organization of educational technology that is acceptable to all professionals. It seems that each person views the field from a personal perspective based on the individual's experience with those aspects of the field that fall within the scope of one's daily work. When it comes to organizing the "classic" works, one scheme would appear to be almost as logical as the next. The authors have chosen to use the following approach:

1. Definition and Conceptual Background
   1.2 The field and its definition
   1.2 Theory and rationale
2. Design and Development Functions
   2.1 Design and development
   2.2 Evaluation
3. Delivery Options
   3.1 Media
   3.2 Methods and techniques
4. The Profession

The table of contents is appended to this paper.

A Final Comment

It is apparent that these are "dated" articles. Most of them come from the three decades following the end of WorldWar II. Each article is representative of the author's contributions to the field of educational technology. There are ten times the number of articles contained in this volume that constitute the core literature of the field. Some are within the range of dates used here; many more are published later. The contents of this book are "classics" as noted by many practitioners in the field. There probably would not be 100% agreement among all the individuals who participated in the nomination process. In the book readers will find an expanded bibliography of many works that have helped to establish the field as a profession.

Donald P. Ely

Bibliography

Clark, R.E. and Salomon, G. (1986) Media and education. In M. Wittrock (Ed.) *Handbook of Research on Teaching, 3rd edition.* New York: Holt, Rinehart and Winston.

Davies, I.K. (1978) Educational technology: archtypes, paradigms, and models. In J.A. Hartley and I.K. Davies (Eds.) *Contributions to educational technology.* Vol. 2:9-29. London: Kogan Page.

Eraut, M. (1989) Educational technology: Conceptual frameworks and historical development. In M.R. Eraut (Ed.) *The international encyclopedia of educational technology.* Oxford: Pergamon Press, 11-21.

Gagne, R. M. (1964) Learning heirarchies. *Educational psychologist* 6. 1-9.

Reiser, R.A. (1987) Instructional technology: A history. In R.M. Gagne (Ed.) *Instructional technology: Foundations.* Hillsdale, NJ: Lawrence Erlbaum, 38-48.

Saettler, P. (1992) *The evolution of American educational technology.* Englewood, CO: Libraries Unlimited.

Seels, B.B. and Richey, R.C. (1994) *Instructional technology: the definition and domains of the field.* Washington, DC: Association for Educational Communications and Technology.

CLASSIC WRITINGS ON INSTRUCTIONAL TECHNOLOGY

Donald P. Ely and Tjeerd Plomp

TABLE OF CONTENTS

1. Definition and Conceptual Background

1.1 The Field and its Definition

Association for Educational Communication and Technology (1977) *The definition of educational technology.* Washington, DC: AECT. 1-16.

Davies, I.K. (1978) Educational technology: archtypes, paradigms, and models.
In J.A. Hartley and I.K. Davies (Eds.) *Contributions to educational technology,* Vol. 2:9-29. London: Kogan Page.

Heinich, R.M. (1973) Is there a field of educational communications and technology? *Audiovisual Instruction,* 18:5, 44-46.

1.2 Theory and Rationale

Churchman, C.W. (1965) On the design of educational systems. *Audiovisual Instruction* 10:5. 361-365.

Finn, J.D. (1962) A walk on the altered side. *Phi Delta Kappan* 44:1. 29-34.

Hoban, C.F. Jr. (1977) A systems approach to audiovisual communications (1956 Okoboji speech). L.W. Cochran, *Okoboji: A 20 Year Review of Leadership 1955-1974.* Dubuque, IA: Kendall/Hunt. 67-72.

Lumsdaine, A. A. (1964) Educational technology, programmed learning and instructional science. In E.R. Hilgard (Ed.) *Theories of Learning and Instruction: The sixty-third yearbook of the National Society for the Study of Education, Part 1.* Chicago: University of Chicago Press. 371-401.

2. Design and Development Functions

2.0 Design and Development

Gagne, R. (1968) Learning hierarchies. *Educational Psychologist* 6. 1-9

2.1 Evaluation

Kaufman, R. (1977) Needs assessments: internal and external. *Journal of Instructional Development* 1:1. 5-8.

Kirkpatrick, D.L. (1979)Techniques for evaluating training programs. *Training and Development Journal.* June. 78-9

Stake, R. (1967) The countenance of educational evaluation. *Teachers College Record* 68. 523-540.

Tyler, R. (1966) New dimensions in curriculum development. *Phi Delta Kappan,* September. pp. 25-28.

3. Delivery Options

3.1 Media

Dale, E. (1946) The cone of experience. In *Audio-Visual Methods in Teaching,* 1st edition. New York: Dryden Press. pp. 37-51.

3.2 Methods and Techniques

Keller, F.S. (1968) "Good-bye, teacher..."*Journal of Applied Behavior Analysis* 1, 79-89.

Skinner, B.F. (1954) The science of learning and the art of teaching. *Harvard Education Review* 24. 86-97.

Skinner, B.F. (1958) Teaching Machines. *Science* 128. 969-977.

4. The Profession

Finn, J.D. (1953) Professionalizing the audio-visual field. *Audio-visual Communication Review* 1:1. 6-17.

6