

ETR&D-Development: An Analysis of Content and Survey of Future Direction

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This article reports on a study conducted to provide information on the direction of the development section of Educational Technology, Research and Development (ETR&D). The first part of the study involved an analysis of each article published in ETR&D-Development from 1989–1997. The second part of the study consisted of a survey of consulting editors to determine their perceptions of the topics and the types of articles that should be published in ETR&D-Development. The results will be used to guide the Development Editor in soliciting and selecting articles for publication in the journal.

□ *Educational Technology, Research and Development (ETR&D)* was first published in 1989 by the Association for Educational Communications and Technology (AECT) after a decision by the AECT Executive Board to consolidate the *Educational Communications and Technology Journal (ECTJ)* and the *Journal of Instructional Development (JID)*. According to Winn (1989), one reason for merging *ECTJ* and *JID* was the belief that AECT should not publish separate theory and application journals since “educational technology, more than any other sub-field of education, is concerned with the application of theory to practice” (p. 35).

However, the *ETR&D* charter indicates that the journal has two sections—a research section and a development section. Each section has its own editor, editorial board, and consulting editors. The research section publishes reports of research related to Educational Technology, literature reviews and analyses of research, and discussions of new research recommendations and/or theoretical interpretations. The development section is concerned with the systematic development of instructional programs and learning environments and publishes reports of innovative development projects, reviews of literature related to development processes and the development of programs and environments, and discussions of conceptual models of instructional development. (AECT, 1990).

Decisions about what to publish in any journal are partly based on what subscribers want to read. The first issue of *ETR&D* included a study by Higgins, Sullivan, Harper-Marinick, & Lopez, (1989) conducted to determine what AECT members would prefer to read in the journal. Results indicated that there was no strong preference for any topic when all respondents

were considered. Subscribers of *ECTJ* and/or *JID* had stronger preferences than general AECT members for certain topics. The five most preferred topics for journal subscribers were: instructional development, effective instruction, interactive video, computer applications, and distance learning. The three most preferred article types for all respondents were: case studies, applied research, and literature reviews of educational technology uses, while the most preferred article types for subscribers were: applied research, case studies, and literature reviews of research and development.

Higgins, et al. (1989) compared these preferences with the contents of *ECTJ* and *JID*. Results suggested that media selection/utilization was the most frequently published topic in *ECTJ*, followed by effective instruction and computer applications. Experimental research was the most common type of article published in *ECTJ*. Findings also indicated that descriptions was the most common type of article published in *JID* and instructional development was the most frequently published topic, accounting for 72% of all articles.

The first issue of *ETR&D* also included a study by Dick and Dick (1989) conducted to examine the similarities and differences between *ECTJ* and *JID* in terms of the types of articles and authors published by both journals. These researchers analyzed the content of five volumes of both journals and concluded that the three major categories of articles published in *ECTJ* were empirical, theoretical, and literature reviews and the three major categories published in *JID* were methodological, literature reviews, and descriptive studies. Furthermore, Dick and Dick (1989) found that eight first authors (Clark, Carrier, Hannafin, McCombs, Resier, Jonassen, Mellon, and Tennyson) had articles published in both *ECTJ* and *JID*.

Three studies have been conducted recently to examine the content of articles published in *ETR&D*. A study by Villarreal-Stewart et al. (1997) suggested that the primary topic areas published in *ETR&D* from 1990 to 1995 were related to computer applications and interactive technologies. A review of *ETR&D* from 1992 to 1996 by Driscoll (1997) indicated that literature reviews and conceptual pieces accounted for

37% of articles in the development section and 35% of articles in the research section. Finally, Reeves (1995) reported that the primary article types published in the research section of *ETR&D* from 1989 to 1994 were empirical research using quantitative methods and theoretical literature reviews. Reeves (1995) did not examine the development section of *ETR&D* in his study.

The purpose of the current article is to describe a study conducted to provide information on the direction of the development section of Educational Technology, Research and Development (*ETR&D*). The first part of the study involved an analysis of every article published in *ETR&D-Development* from its inception in 1989 to its most recent issue in mid-1997. The second part of the study consisted of a survey of consulting editors to determine their perceptions of the topics and the types of articles that should be published in *ETR&D-Development*. The results of the study will be used to guide the Development Editor in soliciting and selecting articles for publication in the journal.

METHOD

The content of each article published in the development section of *ETR&D* from the first issue to the most recent issue of the journal was analyzed by the Development Editor-elect. Articles that appeared in the research section of the journal or in two issues that did not have separate research and development sections were not included in the study. One hundred articles that were published in *ETR&D-Development* from 1989 (Volume 37, Number 2) to 1997 (Volume 45, Number 2) were analyzed.

Basic information about the topic, type of article, and authors was gathered for each article. First, each article was classified into one of four categories developed based on research by Dick and Dick (1989) and Higgins et al. (1989). These categories were:

Case study. Detailed examination of a specific program, project, method, or model that uses data to draw conclusions (includes evaluation studies);

Description. Presentation of information about a

specific program, project, method, or model with little or no use of data to draw conclusions;

Empirical research. Research studies, other than case studies, which use data to draw conclusions (includes experimental, qualitative, and survey designs);

Literature review. Summary of a body of literature, sometimes as a critique and sometimes to draw implications for practice.

Next, the topic of each article was identified and classified. The topic descriptors provided by Higgins et al. (1989) were initially used for this classification. However, this list was modified to include articles which could not be categorized using those descriptors. The final list of topic descriptors was: computer applications, distance learning, effective instruction, instructional design (ID) & development, ID for computer technologies, ID and technology in schools, professional/curricular issues, and social/cultural issues. Finally, information on first authorships was collected to determine which individuals had multiple articles published in *ETR&D-Development*.

The second part of the study consisted of a written survey to determine the topics and types of articles that should be published in *ETR&D-Development*. The survey instrument was designed by the Development Editor-elect to gather information on the following open-ended questions: What topics should be published in *ETR&D-Development*? What types of articles should be published in *ETR&D-Development*? Items allowed for multiple responses to a question; respondents could list as many topics and article types as they wanted.

The sample for this survey was all 60 consulting editors of the development section of the journal. The survey was mailed to this group in mid-September 1996, and all surveys returned by mid-December were included in the analysis. Fifty-four surveys were completed, indicating a 90% return rate.

RESULTS

Table 1 provides data on the topics of articles published in *ETR&D-Development* from 1989–1997. These data indicate that ID for computer

technologies was the topic most frequently published (26%), followed by instructional design and development (23%), and computer and technology applications (14%). Other topics published include ID and technology in schools (8%), professional and curricular issues (7%), distance learning (6%), effective instruction (6%), and social and cultural issues (5%).

Table 1 □ Article topics published in *ETR&D-Development* from 1989–1997*

Article Topic	Number
ID for Computer Technologies	26
Instructional Design & Development	23
Computer & Technology Applications	14
ID & Technology in Schools	8
Professional & Curricular Issues	7
Distance Learning	6
Effective Instruction	6
Social & Cultural Issues	5
Other	5

*Note: A total of 100 articles was analyzed

Table 2 provides information on the types of articles published in *ETR&D-Development*. These results indicate that almost half of all articles published (49%) were descriptions about a specific program, project, method, or model with little or no use of data to draw conclusions. Literature review was the second most common type of article published (21%). Case studies and empirical research (articles that used data to

Table 2 □ Types of articles published in *ETR&D-Development* from 1989–1997

Article Type	Number
Descriptions	49
Literature Reviews	21
Case Studies	18
Empirical Research	12

draw conclusions) accounted for a combined 30% of all articles published.

Table 3 shows that 11 first authors have published multiple articles in *ETR&D-Development* since its inception. Three first authors (Locatis, Rieber, Tessmer) have each published four articles, three authors (Hannafin, Kinzie, Reiser) have each published three articles, and five authors (Higgins, Jonassen, Klein, Martin, Wilson) have each published two articles in *ETR&D-Development*.

Table 3 □ First authors with multiple articles in *ETR&D-Development* from 1989–1997

<i>Author</i>	<i>Number</i>
C. Locatis	4
L. Rieber	4
M. Tessmer	4
M. Hannafin	3
M. Kinzie	3
R. Reiser	3
N. Higgins	2
D. Jonassen	2
J. Klein	2
B. Martin	2
B. Wilson	2

Table 4 provides a list of topics that consulting editors think should be published. The question, "What topics should be published in *ETR&D-Development*?" elicited 186 responses. Only those topics listed by five or more respondents are included in Table 4.

Results indicate that instructional design and development was the only topic listed by more than half (59%) of all consulting editors. This topic was followed by educational technology applications (35%), ID for computer technologies (22%), evaluation (22%), and distance learning/world wide web/internet (20%). Topics that were listed by fewer than 20% the respondents were innovation and adaptation of ID models, performance technology and support systems, professional and curricular issues, ID and technology in schools, systemic change and school

Table 4 □ Consulting editor preferences for *ETR&D-Development* topics

<i>Article Topic</i>	<i>Number</i>
Instructional Design & Development	32
Educational Technology Applications	19
Evaluation	15
ID for Computer Technologies	
Distance Learning/ World Wide Web/Internet	11
Innovation & Adaptation of ID Models	10
Performance Technology & Support Systems	10
Professional & Curricular Issues	9
ID & Technology in Schools	8
Systemic Change & School Reform	7
Training	6
Assessment & Measurement	5
Cooperative & Collaborative Learning	5
Learning Environments	5

reform, training, assessment and measurement, cooperative and collaborative learning, and learning environments.

Table 5 provides the types of articles that consulting editors believe should be published. The question, "What types of articles should be published in *ETR&D-Development*?" brought 128 responses. Only those article types that were

Table 5 □ Consulting editor preferences for types of articles

<i>Article Type</i>	<i>Number</i>
Applied Research	17
Case Studies	17
Theoretical	17
Development Research	13
Descriptions	12
Conceptual	7
Empirical Research	7
Evaluation	7
Qualitative Research	7
Literature Reviews	6
Quantitative Research	6
Action Research	5

listed by five or more respondents are included in Table 5.

While 12 types of articles were listed by respondents, no one type was listed by half or more of the consulting editors. However, articles that use data to draw conclusions (applied research, case studies, development research, empirical research, evaluation studies, qualitative research, quantitative research, and action research) were indicated in 79 out of the 128 responses provided to this item. Articles that use little or no data to draw conclusions (theoretical, conceptual, descriptions, & literature reviews) were indicated in 42 of the 128 responses provided.

DISCUSSION

The current study provides some implications for the direction of *ETR&D-Development*. Results indicate that the content of the journal has reflected the development and application of computer and other communication technologies more than the development of instructional technologies. The topics of ID for computer technologies and application of computer and other technologies combined for 40% of all articles published from 1989–1997. It is likely that this trend will continue in the future. A number of consulting editors listed topics such as Educational Technology applications, ID for computer technologies, and distance learning when asked, "What topics should be published in *ETR&D-Development*?"

Furthermore, instructional design and development will continue to be an important focus of the journal. Approximately one quarter of all articles published from 1989–1997 were related to this topic. It is interesting that the topic most preferred by potential *ETR&D* subscribers in 1989 was instructional development (Higgins, et al., 1989) and that instructional design and development was the only topic listed by more than half of all consulting editors in the current study.

While a number of consulting editors indicated a preference for articles on instructional design and development and on the development and applications of educational technologies, they also suggested that *ETR&D-Development* should publish articles on many different topics. Several consulting editors sug-

gested that the journal should publish articles on topics such as evaluation, distance learning, performance technology, innovation, change, and professional issues.

Turning to type of article, results revealed that almost half of all articles published *ETR&D-Development* from 1989 to mid-1997 were descriptions about a specific program, project, method, or model with little or no use of data to draw conclusions. Literature reviews accounted for 21% of articles published, while articles that used data to draw conclusions (case studies and empirical research) accounted for approximately one-third of all published articles. It is interesting to note that in 1989, the three most preferred article types for potential subscribers were applied research, case studies, and literature reviews (Higgins, et al., 1989). However, since most manuscripts submitted to *ETR&D* are not solicited, the editor has little control over the pool of manuscripts available for publication.

While consulting editors in the current study did not indicate a strong preference for any particular type of article, many respondents did show a desire for articles that use data to draw conclusions. Others indicated that theoretical articles and project descriptions should be published in *ETR&D-Development*. Written comments provided by a few respondents may shed some light on the types of articles that consulting editors want published:

I think there is a common confusion regarding what fits in the Research Section and what fits in the Development Section. Research and theory belong in both sections . . . the nature of the research and theory should vary between the two sections. The development section should publish research and theory that forms the basis of design, development, and evaluation theory and models Development articles should be legitimate research or legitimate theorizing However, they are specifically applied to an aspect of design, development or evaluation.

I would like to see a broad range of articles published . . . something like the type of articles published in the old *JID* . . . I'd like to see case studies describing exemplary ID projects . . . I think the journal should also be the place to publish new ID models or even thought pieces which stir up the field of ID.

The focus [of *ETR&D-Development*] should be on studies about instructional development practice.

I believe the Development side should focus on development over research . . . research studies of treatments using technology can go to the *ETR&D-R* side. I want to see a focus on design and development, particularly in terms useful to other developers.

I do believe that *ETR&D* should limit publishing to research investigations and refrain from soliciting narratives describing a design/development project without an investigative framework that analyzes the process.

We should be open to all forms of disciplined inquiry.

I favor applied research but recognize that a lot of people are doing theory building and developmental projects

Applied research with data concerning the effectiveness of a development project [should be published].

ETR&D Development Section has some fine articles, but it needs to lighten-up and not try to be another Educational Psychologist. *ETR&D* has lost the development aspect that the Journal of Instructional Development had.

I simply feel that we should be publishing only articles representing the highest scholarship possible. Articles should have a clear conceptual focus with strong ties to theory and research.

EDITOR'S PERSPECTIVE

Combined with data from previous research, the current study indicates that *ETR&D-Development* should continue to publish a broad range of articles while focusing on the design and development of learning systems and educational technology applications. However, the range of topics listed by consulting editors shows no particular bias toward potential manuscript submissions. Manuscripts on evaluation, distance learning, performance technology, innovation, change, and professional issues are invited. Applications in schools and training settings are particularly encouraged.

The current study also suggests that *ETR&D-Development* should publish a variety of types of articles. Manuscripts that examine a specific theory, concept, model, or program are all

invited. Manuscripts that use data to draw conclusions are particularly encouraged. All manuscripts submitted to *ETR&D-Development* should link research and theory to practice and include clear implications for the field. While a broad range of potential topics and article types will be considered, *ETR&D-Development* will continue to strive for a high level of scholarship. □

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