

DOCUMENT RESUME

ED 482 897

CS 510 781

AUTHOR Knudson, Ruth E.; Theurer, Joan Leikam; Boyd-Batstone, Paul
TITLE A Decade of Literacy Research in the "Journal of Educational Research".
PUB DATE 2002-01-00
NOTE 42p.
PUB TYPE Information Analyses (070) -- Reports - Evaluative (142)
EDRS PRICE EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS Content Analysis; Elementary Education; Higher Education; *Literacy; *Research Methodology; *Scholarly Journals; *Scholarship
IDENTIFIERS *Journal of Educational Research

ABSTRACT

A total of 378 articles were published in the "Journal of Educational Research" from 1990-1999. Ninety-seven (26%) focused on literacy. Information was categorized for each article with respect to authors' gender, multiple versus single authorship, study design, use of statistics, age of subjects, number of subjects, and kind of research. There was no significant trend by year for the number of articles published by sole vs. multiple authors or by men, women, or male/female co-authors. More than 70% of the articles had multiple authors. There was no significant trend by year for design of study, statistics used, or number of subjects in the study. There was, however, a trend away from applied research after 1996. There were no applied research studies published 1997-1999 while approximately one literacy-focused applied research article a year was published 1991-1996. There was also some movement away from studies with "n" larger than 1000 from 1995 through 1999. The total number of articles focused on literacy decreased from 1996. The average number of articles published with a literacy focus 1990-1995 was 12.38. The average number 1996-1999 was 5.75. With respect to design, approximately 50% of the articles published were experimental while 22% were correlational and 21% were descriptive. Approximately 36% of the articles used ANOVA, 20% used correlation including multiple regression, 17% used descriptive statistics including percentages and frequencies, and 13% used other multivariate techniques such as MANOVA. The remaining articles employed path analysis, M/ANOVA with multiple regression, Yates' algorithm, chi square, factor analysis, or no statistics (4%). Fifty-four percent of the articles had elementary school subjects, 15% high school subjects, 14% multiple-age subjects (often children and their parents and/or teachers), 5% middle school subjects, 4% college students, 5% other adults, and 2% no human subjects. (Contains 6 tables of data and 99 references.) (Author/RS)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 482 897

**A Decade of Literacy Research in the
*Journal of Educational Research***

Submitted January 2002

Submitted by: Ruth E. Knudson, Ph.D., Joan Leikam Theurer, Ph.D.,
and Paul Boyd-Batstone, Ph.D.
California State University, Long Beach
College of Education
1250 Bellflower Boulevard
Long Beach, CA 90840

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

R. E. Knudson

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PHONE: (562) 985-1690
EMAIL: rknuded@aol.com

1

2

BEST COPY AVAILABLE

Abstract

Three hundred seventy-eight articles were published in *JER* from 1990-1999. Ninety-seven (26%) focused on literacy. Information was categorized for each article with respect to authors' gender, multiple versus single authorship, study design, use of statistics, age of subjects, number of subjects, and kind of research. There was no significant trend by year for the number of articles published by sole vs. multiple authors or by men, women, or male/female co-authors. More than 70% of the articles had multiple authors. There was no significant trend by year for design of study, statistics used, or number of subjects in the study. There was, however, a trend away from applied research after 1996. There were no applied research studies published 1997-1999 while approximately one literacy-focused applied research article a year was published 1991-1996. There was also some movement away from studies with n larger than 1000 from 1995-on. The total number of articles focused on literacy decreased from 1996. The average number of articles published with a literacy focus 1990-1995 was 12.38. The average number 1996-1999 was 5.75. With respect to design, approximately 50% of the articles published were experimental while 22% were correlational and 21% were descriptive. Approximately 36% of the articles used ANOVA, 20% used correlation including multiple regression, 17% used descriptive statistics including percentages and frequencies, and 13% used other multivariate techniques such as MANOVA. The remaining articles employed path analysis, *M*/ANOVA with multiple regression, Yates' algorithm, chi square, factor analysis, or no statistics (4%). Fifty-four percent of the articles had elementary school subjects, 15% high school subjects, 14% multiple-age subjects (often children and their parents and/or teachers), 5% middle school subjects, 4% college students, 5% other adults, and 2% no human subjects.

A Decade of Research in the *Journal of Educational Research*

The *Journal of Educational Research* is rated as one of the top journals in education in almost every survey taken. It stands the tests of rigor, significance of studies, and circulation. Approximately one fourth (97 of 378 articles) of its content focuses on literacy 1990-1999. This is an important point because a review of two other general education journals, namely the *Journal of Research and Development in Education (JRDE)* and the *Journal of Experimental Education (JEE)*, demonstrates that about 15% of their contents are on literacy-related topics. *JER* also publishes more articles (378 vs. 246/*JEE*) than many other journals over a ten-year period. Since *JER* publishes more articles than other journals and a higher percent of its content focuses on literacy, it is a very important source of work on literacy-related topics. The purpose of this article is to identify trends in *JER* 1990-1999 and to describe its contents in terms of single vs. multiple authors, focus of the study, design, statistics used if any, age of subjects, number of subjects, applied versus basic research, and gender of authors.

Methods and/or Techniques

Two university faculty, each with a Ph.D. with a literacy focus, who are also credentialed public school teachers, read every abstract in *JER*, 1990-1999. Each separately decided if the article focused on literacy and should be included in the study. They agreed on 91% of the articles after reading the abstracts. The other 9% were included/excluded following their discussion. Collectively, the researchers defined literacy and applicable abstracts as those dealing with some aspect of reading, writing, and speaking with subjects who were students in kindergarten through graduate school. After discussion, they included articles with adults (non-students, parents and/or teachers of children in the study) and those with no human subjects such as reviews of research on handwriting.

Following the work of Nelson and Coorough (1994), the following information was identified and categorized by two of the researchers on each study: 1)gender of authors; 2)multiple versus single authorship; 3) design of study (e.g., experimental, descriptive, correlational, analytical, program evaluation, historical, and qualitative;4) statistics (e.g., ANOVA model, frequencies and percentages, correlation, nonparametric, multivariate, and no statistics; 5) age of subjects; 6) number of subjects; and 7) type of research (basic versus applied). If the researchers could not obtain the information from the abstracts, the entire article was used. Two researches also categorized information pertaining to the topic(s) of the studies. They agreed on 97% of the categories; the other 3% were decided through discussion.

Data Source

The data source was the abstracts from the articles, 1990-1999. The articles themselves were used when necessary.

Results and/or Conclusions

Three hundred seventy-eight articles were published in the *Journal of Educational Research*, 1990-1999. Ninety-seven of the articles focused on literacy. The number of articles focusing on literacy is presented in Table 1 by year. Approximately two-thirds of

Insert Table 1 here.

the articles were published in the first half of the decade. There is a noticeable decline in the number of articles published on literacy after 1996.

Twenty-seven (28%) of the articles were single-authored and 70 (72%) of the

Insert Table 2 here.

articles were co-authored. Thirty-three (34%) were authored by men, 26 (27%) by women, and

38 (39%) had male and female co-authors. There was no significant trend by year concerning the number of articles published by men, women, or male-female co-authors.

Insert Table 3 here.

There were no changes in predominant approaches to design during the decade, which is depicted in Table 4. Forty-eight (49%) of the articles were experimental in design, 21 (22%) correlational, 17 (18%) descriptive, 5 (5%) experimental/correlational, 2 (2%) historical, 3 (3%) qualitative, and 1 (1%) descriptive/correlational. More studies used ANOVA (35/36%) than

Insert Table 4 here.

any other statistical technique, 19 (20%) used correlation, including multiple regression, 16 (16%) used descriptive statistics, 12 (12%) used multivariate techniques (primarily MANOVA), 5 (5%) used M/ANOVA with regression, 2 (2%) used chi square, 1 (1%) used path analysis, 1 (1%) used Yates' algorithm, 1 (1%) used factor analysis, and 4 (4%) used no statistics.

The majority of the studies focused on elementary school-age children (52, 54%), 15 (15%) on high school students, 14 (14%) on multi-age groups, 5 (5%) on middle school, 5 (5%) on adults, 4 (4%) on college students, and 2 (2%) had no human subjects. Fourteen (14%) studies had 0-25 subjects, 11 (11%) had 26-50, 13 (13%) had 51-75, 15 (15%) had 76-100, 11 (11%) had 101-150, 10 (10%) had 150-200, 15 (15%) had 200-1000, and 6 (6%) had more than 1000 subjects. Two studies did not have human subjects and one article did not report the number of subjects.

The articles had primarily one focus. If there were multiple foci, articles were categorized for each focus. See Table 5. There were 21 articles on some aspect of writing,

Insert Table 5 here.

14 on reading strategies, 10 on beliefs and attitudes, 9 on content area reading, 8 on reading

comprehension, 7 on literature-based reading, 7 on special populations, and 6 technology-related. Other topics occurred less frequently. The significant findings from each study are given in Table 6.

Insert Table 6 here.

In conclusion, who we are and what we study are important to know, not only historically, but also to note trends, patterns, and descriptions of our work. The 1990s have seen a revival of interest in standardized testing, in standards-based instruction, in student achievement, and in teachers' competence. We note that no one topic, design, or age group totally dominates the field as published in *JER*. However, there are more popular designs, subject pools, and topics. An analytic appraisal tells us that we are working together on our research, using several statistical techniques to interpret our findings, designing our studies with multiple techniques in mind, and focusing on the school-age population, most noticeably the younger children. Large-scale studies are less common at the end of the 1990's, an interesting fact. Also interesting, and disturbing to those interested in literacy research, is the decline in the number and percentage of articles focused on literacy throughout the decade. We do not think there are new, additional outlets. We are concerned that there is actually less research published and hope this trend does not continue. We would interpret much of this data as favorable, namely male and female co-authors, multiple techniques and designs, and several subject pools. However, the decline in the number of articles published focused on literacy is a concern to those of us who focus on this very important topic.

References

- Alexander, J.C. (1998). Reading skill and context facilitation: A classic study revisited. *Journal of Educational Research, 91* (5), 314-318.
- Allred, R.A. (1990). Gender differences in spelling achievement in grades 1 through 6. *Journal of Educational Research, 83* (4), 187-193.
- Alvermann, D.E., Hynd, C.E., and Qian, G. (1995). Effects of interactive discussion and text type on learning counterintuitive science concepts. *Journal of Educational Research, 88* (3), 146-154.
- Bean, T.W. (1997). Preservice teachers' selection and use of content area literacy strategies. *Journal of Educational Research, 90* (3), 154-163.
- Bean, T.W., Searles, D., Singer, H., & Cowen, S. (1990). Learning concepts from biology text through pictorial analogies and an analogical study guide. *Journal of Educational Research, 83* (4), 233-237.
- Bean, T.W., Valerio, Senior, H.M., & White, F. (1999). Secondary English students' engagement in reading and writing about a multicultural novel. *Journal of Educational Research, 93* (1), 32-37.
- Carlisle, J.F. & Felbinger, L. (1991). Profiles of listening and reading comprehension. *Journal of Educational Research, 84* (6), 345-355.
- Dale, H. (1994). Collaborative writing interactions in one ninth-grade classroom. *Journal of Educational Research, 87* (6), 374-345.
- Davidson, M., & Jenkins, J.R. (1994). Effects of phonemic processes on word reading and spelling. *Journal of Educational Research, 87* (3), 148-157.

- Davis, Z.T. (1994). Effects of prereading story mapping on elementary readers' comprehension. *Journal of Educational Research*, 87 (6), 353-360.
- Denner, P.R., & McGinley, W.J. (1992). Effects of prereading activities on junior high students' recall. *Journal of Educational Research*, 86 (1), 11-19.
- Dobbie, L., & Askov, E.N. (1995). Progress of handwriting research in the 1980s and future prospects. *Journal of Educational Research*, 88 (6), 339-352.
- Dreher, M.J. & Zenge, S.D. (1990). Using metalinguistic awareness in first grade to predict reading achievement in third and fifth grades. *Journal of Educational Research*, 84 (1), 13-21.
- Dwyer, H.J. & Sullivan, H.J. (1993). Student preferences for teacher and computer composition marking. *Journal of Educational Research*, 86 (3), 137-141.
- Eldredge, J.L. (1990). Increasing the performance of poor readers in the third grade with a group-assisted strategy. *Journal of Educational Research*, 84 (2), 69-77.
- Eldredge, J.L., Quinn, B., & Butterfield, D.D. (1990). Causal relationships between phonics, reading comprehension, and vocabulary achievement in the second grade. *Journal of Educational Research*, 83 (4), 201-214.
- Engle, R.W., Carullo, J.J., & Collins, K.W. (1991). Individual differences in working memory for comprehension and following directions. *Journal of Educational Research*, 84 (5), 253-262.
- Englehard, J.R, George, Walker, E.V.S., Gordon, B., & Gabrielson, S. (1994). Writing tasks and gender: Influences on writing quality of black and white students. *Journal of Educational Research*, 87 (4), 197-210.

- Foote, C.J. (1998). Student-generated higher order questioning as a study strategy. *Journal of Educational Research*, 92 (2), 107-
- Freppon, P.A. & McIntyre, E. (1999). A comparison of young children learning to read in different instructional settings. *Journal of Educational Research*, 92 (4), 206-219.
- Gambrell, L.B., Koskinen, P.S., & Kapinus, B.A. (1991). Retelling and the reading comprehension of proficient and less-proficient readers. *Journal of Educational Research*, 84 (6), 356-362.
- Gettinger, M. (1993). Effects of error correction on third graders' spelling. *Journal of Educational Research*, 87 (1), 39-45.
- Gillingham, M.G. & Garner, R. (1992). Readers' comprehension of mazes embedded in expository texts. *Journal of Educational Research*, 85 (4), 234-241.
- Glaubman, R., Glaubman, H., & Ofir, L. (1997). Effects of self-directed learning, story comprehension, and self-questioning in kindergarten. *Journal of Educational Research*, 90 (6), 361-374.
- Graham, S., Berninger, V., Weintraub, N., & Schafer, W. (1998). Development of handwriting speed and legibility in grades 1-9. *Journal of Educational Research*
- Graham, S., Harris, K.R., & Loynachan, C. (1993). The basic spelling vocabulary list. *Journal of Educational Research*, 86 (6), 363-368.
- Graham, S., Weintraub, N., & Berninger, V.W. (1998). The relationship between handwriting style and speed and legibility. *Journal of Educational Research*, 91 (5), 290-296.
- Grejda, G.F. & Haannafin, M.J. (1992). Effects of word processing on sixth graders' holistic writing and revisions. *Journal of Educational Research*, 85 (3), 144-149.

- Griffin, C.C., Malone, L.D., & Kameenui, E.J. (1995). Effects of graphic organizer instruction on fifth-grade students. *Journal of Educational Research, 89* (2), 98-108.
- Haynes, C. & Richgels, D.J. (1992). Fourth graders' literature preferences. *Journal of Educational Research, 85* (4), 208-220.
- Helwig, R., Rozek-Tedesco, Tindal, G., Heath, B., & Almond, P.J. (1999). Reading as an access to mathematics problem solving on multiple-choice tests for sixth-grade students. *Journal of Educational Research, 93* (2), 113-126.
- Hirumi, A. & Bowers, D.R. (1991). Enhancing motivation and acquisition of coordinate concepts by using concept trees. *Journal of Educational Research, 84* (5), 273-279.
- Hollingsworth, P.M. & Reutzel, D.R. (1990). Prior knowledge, content-related attitude, reading comprehension: Testing Mathewson's affective model of reading. *Journal of Educational Research, 83* (4), 194-200.
- Holmes, C.T. & Keffer, R.L. (1995). A computerized method to teach Latin and Greek root words: Effect on verbal SAT scores. *Journal of Educational Research, 89* (1), 47-51.
- Homan, S.P., Klesius, J.P., & Hite, C. (1993). Effects of repeated readings and nonrepetitive strategies on students' fluency and comprehension. *Journal of Educational Research, 87* (2), 94-99.
- Jacobson, J., Reutzel, D.R., & Hollingsworth, P.M. (1992). Reading instruction: Perceptions of elementary school principals. *Journal of Educational Research, 85* (6), 370-380.

- Jitendra, A.K., Griffin, C.C., McGoey, K., Gardill, M.C., Bhat, P., & Riley, T. (1998). Effects of mathematical word problem solving by students at risk or with mild disabilities. *Journal of Educational Research, 91* (6), 345-
- Kelly, M., Moore, D.W., & Tuck, B.F. (1994). Reciprocal teaching in a regular primary school classroom. *Journal of Educational Research, 88* (1), 53-61.
- Ketner, C.S., Smith, K.E., & Parnell, M.K. (1997). Relationship between teacher theoretical orientation to reading and endorsement of developmentally appropriate practice. *Journal of Educational Research, 90* (4), 212-220.
- Klinge, W.E. & Warrick, B.K. (1990). Influence of cost and demographic factors on reading achievement. *Journal of Educational Research, 83* (5), 279-282.
- Knight, S.L. (1992). Relation between elementary students' perceptions of teacher behaviors and reading strategy. *Journal of Educational Research, 85* (6), 327-338.
- Knudson, R.E. (1992). Analysis of argumentative writing at two grade levels. *Journal of Educational Research, 85* (3), 169-179.
- Knudson, R.E. (1995). Writing experiences, attitudes, and achievement of first to sixth graders. *Journal of Educational Research, 89* (2), 90-97.
- Knudson, R.E. (1998). College students' writing: An assessment of competence. *Journal of Educational Research, 92* (1), 13-
- Kolich, E.M. (1991). Effects of computer-assisted vocabulary training on word knowledge. *Journal of Educational Research, 84* (3), 177-182.
- Konopak, B.C., Readence, J.E., & Wilson, E.K. (1994). Preservice and inservice secondary teachers' orientations toward content area reading. *Journal of Educational Research, 87* (4), 220-227.

- Kush, J.C. & Watkins, M.W. (1996). Long-term stability of children's attitudes toward reading. *Journal of Educational Research*, 89 (5), 315-319.
- Littman, C.B. & Stodolosky, S.S. (1998). The professional reading of high school academic teachers. *Journal of Educational Research*, 75-
- McAuley, S.M. & McLaughlin, T.F. (1992). Comparison of Add-A-Word and Compu Spell programs with low-achieving students. *Journal of Educational Research*, 85 (6), 362-269.
- McGill, A., Allington, R.L., Yokoi, L., & Brooks, G. (1999). Putting books in the classroom seems necessary but not sufficient. *Journal of Educational Research*, 93 (2), 67-75.
- McLain, K.V.M., Gridley, B.E., & McIntosh, D. (1991). Value of a scale used to measure metacognitive reading awareness. *Journal of Educational Research*, 85 (2), 81-88.
- McLaughlin, T.F. (1992). Effects of written feedback in reading on behaviorally disordered students. *Journal of Educational Research*, 85 (5), 312-316.
- McMahon, R., Richmond, M.G., & Reeves-Kazelskis, C. (1998). Relationships between kindergarten teachers' perceptions of literacy acquisition and children's literacy involvement and classroom materials. *Journal of Educational Research*, 91 (3), 173-182.
- McMahon, S.I. & Goatley, V.J. (1995). Fifth graders helping peers discuss texts in student-led groups. *Journal of Educational Research*, 89 (1), 23-35.
- Mahn, C.S. & Greenwood, G.E. (1990). Cognitive behavior modification: Use of self-instruction strategies by first graders on academic tasks. *Journal of Educational Research*, 83 (3), 158-161.

- Mavrogenes, N.A. & Bezruczko, N. (1993). Influences on writing development. *Journal of Educational Research*, 86 (4), 237-246.
- Mavrogenes, N.A. & Bezruczko, N. (1994). A study of the writing of fifth-grade disadvantaged children. *Journal of Educational Research*, 87 (4), 228-239.
- Meyer, L.A., Wardrop, J.L., Hastings, C.N., & Linn, R.L. (1993). Effects of ability and settings on kindergartners' reading performance. *Journal of Educational Research*, 86 (3), 142-160.
- Meyer, L.A., Wardrop, J.L., Stahl, S.A., & Linn, R.L. (1994). Effects of reading storybooks aloud to children. *Journal of Educational Research*, 88 (2), 69-85.
- Miller, S.D. & Meece, J. (1997). Enhancing elementary students' motivation to read and write: A classroom intervention study. *Journal of Educational Research*, 90 (5), 286-299.
- Moore, B.H. & Caldwell, H. (1993). Drama and drawing for narrative writing in primary grades. *Journal of Educational Research*, 87 (2), 100-111.
- Nelson, J.K. & Coorough, C. (1994). Content analysis of the Ph.D. versus ED.D. dissertation. *Journal of Experimental Education*, 62 (2), 158-169.
- Nielsen, D.C. & Monson, D.L. (1996). Effects of literacy environment on literacy development of kindergarten children. *Journal of Educational Research*, 89 (5), 259-271.
- Novak, J.R., Herman, J.L., & Gearhard, M. (1996). Establishing validity for performance-based assessments: An illustration for collections of student writing. *Journal of Educational Research*, 89 (4), 220-233.
- Olson, V.L.B. (1990). The revising processes of sixth-grade writers with and without peer feedback. *Journal of Educational Research*, 84 (1), 22-29.

- Pajares, F. & Valiante, G. (1997). Influence of self-efficacy on elementary students' writing. *Journal of Educational Research, 90* (6), 353-360.
- Rasinski, T.V. (1990). Effects of repeated reading and listening-while-reading on reading fluency. *Journal of Educational Research, 83* (3), 147-151.
- Rasinski, T.V., Padak, N., Linek, W., & Sturtevant, E. (1994). Effects of fluency development on urban second-grade readers. *Journal of Educational Research, 87* (3), 158-165.
- Reutzel, D.R. & Cooter, R.B. (1990). Whole language: Comparative effects on first-grade reading achievement. *Journal of Educational Research, 83* (5), 252-257.
- Reutzel, D.R. & Hollingsworth, P.M. (1991). Reading time in school: Effect on fourth graders' performance on a criterion-referenced comprehension test. *Journal of Educational Research, 84* (3), 170-176.
- Reutzel, D.R. & Hollingsworth. (1991). Investigating topic-related attitude: Effect on reading and remembering. *Journal of Educational Research, 84* (6), 334-344.
- Reutzel, D.R. & Hollingsworth, P.M. (1993). Effects of fluency training on second graders' reading comprehension. *Journal of Educational Research, 86* (6), 325-332.
- Richgels, D.J., Tomlinson, C.M., & Tunnell, M.O. (1993). Comparison of elementary students' history textbooks and trade books. *Journal of Educational Research, 86* (3), 161-171.
- Risch, N.L. & Kiewra, K. (1990). Content and form variations in note taking: Effects among junior high students. *Journal of Educational Research, 83* (6), 355-357.

- Roberts, G.I. & Samuels, M.T. (1993). Handwriting remediation: A comparison of computer-based and traditional approaches. *Journal of Educational Research*, 87 (2), 118-125.
- Schmid, R.F. & Telaro, G. (1990). Concept mapping as an instructional strategy for high school biology. *Journal of Educational Research*, 84 (2), 78-85.
- Siegel, D.F. (1990). The literacy press: A process model for reading development. *Journal of Educational Research*, 83 (6), 336-348.
- Simons, H.D. & Elster, C. (1990). Picture dependence in first-grade basal texts. *Journal of Educational Research*, 84 (2), 86-92.
- Sindelar, P.T., Monda, L.E., & O'Shea, L.J. (1990). Effects of repeated readings on instructional- and mastery-level readers. *Journal of Educational Research*, 83 (4), 220-226.
- Smith, M.C. (1990). A longitudinal investigation of reading *attitude development from childhood to adulthood*. *Journal of Educational Research*, 83 (4), 215-219.
- Smith, M.W. (1991). Constructing meaning from text: An analysis of ninth-grade reader responses. *Journal of Educational Research*, 84 (5), 263-272.
- Smith, M.W. (1992). Effects of direct instruction on ninth graders' understanding of unreliable narrators. *Journal of Educational Research*, 85 (6), 339-347.
- Smith, M.W. & Young, J.W. (1995). Assessing secondary students' liking of short stories. *Journal of Educational Research*, 89 (1), 14-22.
- Smith, S.S. & Dixon, R.G. (1995). Literacy concepts of low- and middle-class four-year-olds entering preschool. *Journal of Educational Research*, 88 (4), 243-253.

- Snapp, J.C. & Glover, J.A. (1990). Advance organizers and study questions. *Journal of Educational Research*, 83 (5), 266-271.
- Snider, V.E. (1997). The relationship between phonemic awareness and later reading achievement. *Journal of Educational Research*, 90 (4), 203-211.
- Spaai, G.W.G., Ellermann, H.H., & Reitsma, P. (1991). Effects of segmented and whole-word sound feedback on learning to read single words. *Journal of Educational Research*, 84 (4), 204-214.
- Spaulding, C.L. (1995). Teachers' psychological presence on students' writing-task engagement. *Journal of Educational Research*, 88 (4), 210-219.
- Stahl, S.A., Pagnucco, J.R., & Suttles, C.W. (1996). First graders' reading and writing instruction in traditional and process-oriented classes. *Journal of Educational Research*, 89 (3), 131-144.
- Stewart, J. (1992). Kindergarten students' awareness of reading at home and in school. *Journal of Educational Research*, 86 (2), 95-104.
- Stewig, J.W. (1994). First graders talk about paintings. *Journal of Educational Research*, 87 (5), 309-317.
- Talbert-Johnson, C., Salva, E., Sweeney, W.J., & Cooper, J.O. (1991). Cursive handwriting: Measurement of function rather than topography. *Journal of Educational Research*, 85 (2), 117-124.
- Toppino, T.C. & Luipersbeck, S.M. (1993). Generality of the negative suggestion effect in objective tests. *Journal of Educational Research*, 86 (6), 357-362.
- Traw, R. (1996). Large-scale assessment of skills in a whole language curriculum: Two districts' experiences. *Journal of Educational Research*, 89 (6), 323-339.

- Varble, M.E. (1990). Analysis of writing samples of students taught by teachers using whole language and traditional approaches. *Journal of Educational Research, 83* (5), 245-251.
- Walbert, H.J. & Ethington, C.A. (1991). Correlates of writing performance and interest: A U.S. national assessment study. *Journal of Educational Research, 84* (4), 198-203.
- Wasson, B.B., Beare, P.L., & Wasson, J.B. (1990). Classroom behavior of good and poor readers. *Journal of Educational Research, 83* (3), 162-165.
- White, B.F. (1995). Effects of autobiographical writing before reading on students' responses to short stories. *Journal of Educational Research, 88* (3), 173-184.

Table 1 **Number of Articles by Year**

| Year | Number of Articles |
|-------------|---------------------------|
| 1990 | 20 |
| 1991 | 12 |
| 1992 | 11 |
| 1993 | 11 |
| 1994 | 10 |
| 1995 | 10 |
| 1996 | 5 |
| 1997 | 6 |
| 1998 | 8 |
| 1999 | 4 |

Table 2

Single vs. Multiple-Authored Articles by Year

| Year | Single Author | Multiple Authors |
|-------------|----------------------|-------------------------|
| 1990 | 7 | 13 |
| 1991 | 2 | 10 |
| 1992 | 5 | 6 |
| 1993 | 1 | 10 |
| 1994 | 3 | 7 |
| 1995 | 3 | 7 |
| 1996 | 1 | 4 |
| 1997 | 2 | 4 |
| 1998 | 3 | 5 |
| 1999 | 0 | 4 |
| | <hr/> | <hr/> |
| | 27 28% | 70 72% |

Table 3 **Gender of Authors by Year**

| Year | Male | Female | Male/Female |
|-------------|-------------|---------------|--------------------|
| 1990 | 11 | 4 | 5 |
| 1991 | 5 | 3 | 4 |
| 1992 | 5 | 3 | 3 |
| 1993 | 3 | 3 | 5 |
| 1994 | 2 | 1 | 7 |
| 1995 | 3 | 6 | 1 |
| 1996 | 1 | 1 | 3 |
| 1997 | 2 | 1 | 3 |
| 1998 | 1 | 3 | 4 |
| 1999 | 0 | 1 | 3 |
| | <hr/> | <hr/> | <hr/> |
| | 33 | 26 | 38 |
| | 34% | 27% | 39% |

Table 4 Design of Study by Year

| Year | Design Exp | Correl | Descrip | Experi/Correl | Historical | Qualitative | Descrip/Correl |
|------|---------------|--------|---------|---------------|------------|-------------|------------------------|
| 1990 | 15 | 3 | 1 | 1 | | | |
| 1991 | 7 | 3 | 2 | | | | |
| 1992 | 4 | 1 | 4 | 2 | | | |
| 1993 | 7 | 2 | - | | 1 | 1 | |
| 1994 | 4 | 3 | 3 | | | | |
| 1995 | 4 | 1 | 2 | | 1 | 1 | 1 |
| 1996 | 0 | 3 | 1 | | | | 1 (and descriptive) |
| 1997 | 2 | 2 | 1 | 1 | | | |
| 1998 | 3 | 3 | 1 | 1 | | | |
| 1999 | 2 | 0 | 2 | | | | |

Table 5 Articles by Author/Year/Number and Gender of Authors/Design/Ss Age, Topic

| Author | Year | Single/ Multiple Author(s) | M, F, M/F | Design | Age of Ss | Topic |
|---------------------------------|------|----------------------------------|-----------------|---------------|-----------------------------|--|
| Alexander | 1998 | Single | Male | Experiment | Gr.1-3 | Reading: Strategies |
| Allred | 1990 | Single | Male | Experiment | Gr.1-6 | Specific Populations: Gender; Spelling |
| Alvermann, Hynd, Quian | 1995 | Multiple | Female | Experiment | Gr. 9 | Genres: Content area literacy |
| Bean | 1997 | Single | Male | Descriptive | Pre- Service Teachers | Specific Populations: Preservice pedagogy; Content area literacy |
| Bean, Searles, Singer, Cowen | 1990 | Multiple | M/F | Experiment | High School | Genres: Content area literacy |
| Bean, Valerio, Senior, White | 1999 | Multiple | M/F | Descriptive | Gr.9 | Genres: Literature-based |
| Carlisle, Felbinger | 1991 | Multiple | F | Experiment | Gr.4,6, 8 | Reading: Comprehension |
| Dale | 1994 | Single | F | Descriptive | Gr.9 | Writing: Processes and products |
| Davidson, Jenkins | 1994 | Multiple | M/F | Experiment | Gr. K | Reading: Phonological Awareness; Spelling |
| Davis | 1994 | Single | M | Experiment | Gr.3,5 | Reading: Comprehension; Thinking tools |
| Denner, McGinley | 1992 | Multiple | M | Experiment | Gr.7,8 | Reading: Strategies |
| Dobbie, Askov | 1995 | Multiple | F | Historical | N/A | Writing: Handwriting |
| Dreher, Zenge | 1990 | Multiple | F | Correlational | Gr.1,3 5 | Reading: Achievement |

A Decade of Literacy Research

| | | | | | | |
|---------------------------------------|------|----------|-----|------------------------|--------------|---|
| Dwyer, Sullivan | 1993 | Multiple | M | Experiment | High School | Writing: Technology; Literacy Mediums: Technology |
| Eldredge | 1990 | Single | M | Experiment | Gr. 3 | Reading: Strategies |
| Eldredge, Quinn, Butterfield | 1990 | Multiple | M | Experiment | Gr.2 | Reading: Vocabulary |
| Engle, Carullo, Collins | 1991 | Multiple | M/F | Correlational | Gr.1,3 6 | Reading: Comprehension |
| Englehard, Walker, Gordon, Gabrielson | 1994 | Multiple | M/F | Correlational | Gr.8 | Specific Populations: Gender, race; Writing |
| Foote | 1998 | Single | F | Experiment | Undergrads. | Questioning Strategies; Study Skills |
| Freppon, McIntyre | 1999 | Multiple | F | Descriptive | Gr. 1 | Reading: Strategies |
| Gambrell, Koskinen, Kapinus | 1991 | Multiple | F | Experiment | Gr. 4 | Reading: Comprehension |
| Gettinger | 1993 | Single | F | Experiment | Gr. 3 | Writing: Spelling |
| Gillingham, Garner | 1992 | Multiple | M/F | Experiment/Correlation | High School | Reading: Comprehension |
| Glaubman, Glaubman, Ofire | 1997 | Multiple | M/F | Experiment | Gr. K | Questioning Strategies & Rdg.: Comprehension |
| Graham, Berninger, Weintraub, Schafer | 1998 | Multiple | M/F | Correlational | Gr. 1-9 | Writing: Handwriting |
| Graham, Harris, Loynachan | 1993 | Multiple | M/F | Historical | K-5 Spelling | Writing: Spelling |
| Graham, Weintraub, Berninger | 1998 | Multiple | M/F | Correlational | Gr.4-9 | Writing: Handwriting |
| Grejda, Hannafin | 1992 | Multiple | M/F | Experiment | Gr. 6 | Writing: Technology; Literacy Mediums: Technology |

A Decade of Literacy Research

| | | | | | | |
|---|------|----------|-----|---------------|------------------------|---|
| Griffin, Malone, Kameenui | 1995 | Multiple | M/F | Experiment | Gr. 5 | Thinking Tools: Graphic organizers |
| Haynes, Richgels | 1992 | Multiple | M/F | Correlational | Gr. 4 | Genres: Literature-based |
| Helwig, Rozek-Tedesco, Tindal, Heath, Almond | 1999 | Multiple | M/F | Experiment | Middle School | Genres: Content area literacy |
| Hirumi, Bowers | 1991 | Multiple | M | Experiment | Under-Grads | Thinking Tools: Graphic organizers |
| Hollingsworth, Reutzel | 1990 | Multiple | M | Experiment | Gr. 6 | Genres: Content area literacy |
| Holmes, Keffer | 1995 | Multiple | M | Experiment | High School | Vocabulary; Literacy Mediums: Technology-related |
| Homan, Klesius, Hite | 1993 | Multiple | F | Experiment | Gr. 6 | Reading: Strategies |
| Jacobson, Reutzel, Hollingsworth | 1992 | Multiple | M | Descriptive | Elem. Schl. Principals | Belief Systems: Attitudes and perceptions about literacy |
| Jitendra, Griffin, McGoey, Gardill, Bhat, and Riley | 1998 | Multiple | M/F | Experiment | Gr.2-5 | Genres: Content area literacy; Special Populations |
| Kelley, Moore, Tuck | 1994 | Multiple | M/F | Experiment | Gr.4,5 | Questioning Strategies; Reading: Comp. |
| Ketner, Smith, Parnell | 1997 | Multiple | M/F | Correlational | Primary Teachers | Belief Systems: Attitudes and perceptions about literacy |
| Klinge, Warrick | 1990 | Multiple | M/F | Correlational | Gr. 4 | Reading: Achievement |
| Knight | 1992 | Single | F | Descriptive | Elem. School | Belief systems: Attitudes and perceptions about literacy |

A Decade of Literacy Research

| | | | | | | |
|-------------------------------------|------|----------|-----|-------------------------|--------------------------------------|---|
| Knudson | 1992 | Single | F | Experiment & Correl. | Gr. 10, 12 | Writing: Analysis and assessment |
| Knudson | 1995 | Single | F | Descriptive and Correl. | Gr. 1-6 | Belief Systems: Attitudes & perceptions about literacy |
| Knudson | 1998 | Single | F | Correl. & Experiment | Gr. 11 & College | Writing: Analysis & assessment |
| Kolich | 1991 | Single | F | Experiment | Gr. 11 | Literacy Mediums: Technology-related; Vocabulary |
| Konopak, Readence, Wilson | 1994 | Multiple | M/F | Descriptive | Preserv. and Ins. Secondary Teachers | Genres: Content area literacy; Belief Systems: Attitudes & perceptions about literacy |
| Kush, Watkins | 1996 | Multiple | M/F | Correlational | Gr. 1-4 | Belief Systems: Attitudes and perceptions about literacy |
| Littman, Stodolosky | 1998 | Multiple | F | Descriptive | Teachers | Specific Populations: Inservice teachers |
| McAuley, McLaughlin | 1992 | Multiple | M | Descriptive | 8.3-9.6 years | Literacy Mediums: Technology -related; Spelling |
| McGill, Allington, Yokoi, Brooks | 1999 | Multiple | M/F | Experiment | Gr. K | Genres: Literature-based |
| McLain, Gridley, McIntosh | 1991 | Multiple | M/F | Correlational | Gr. 3-5 | Reading: Strategies |
| McLaughlin | 1992 | Single | M | Experiment | 10yrs.3mos.- 11yrs.6mos. | Specific Populations: Special education |
| McMahon, Richmond, Reeves-Kazelskis | 1998 | Multiple | M/F | Correlation | Gr. K and K teachers | Belief Systems: Attitudess and perceptions about literacy |

A Decade of Literacy Research

| | | | | | | |
|------------------------------------|------|----------|-----|----------------------------|-------------------------------|---|
| McMahon, Goatley | 1995 | Multiple | F | Qualitative | Gr. 5 | Genres: Literature-Based |
| Mahn, Greenwood | 1990 | Multiple | M | Experiment | Gr. 1 | Motivation: Intervention |
| Mavrogenes, Bezruczko | 1993 | Multiple | M/F | Correlational | Gr. K-4; Teachers, Parents | Writing: Influences & development |
| Mavrogenes, Bezruczko | 1994 | Multiple | M/F | Correlational | Gr. 5 | Specific Populations Race and SES; Writing |
| Meyer, Wardrop, Hastings, Linn | 1993 | Multiple | M/F | Correlational | Gr. K | Reading: Instructional environments |
| Meyer, Wardrop, Stahl, Linn | 1994 | Multiple | M/F | Correlational | Gr. K, & K Parents & Teachers | Genres: Literature-based |
| Miller, Meece | 1997 | Multiple | M/F | Experiment | Gr. 3 & Teachers | Motivation: Intervention |
| Moore, Caldwell | 1993 | Multiple | M/F | Experiment | Gr. 2 & 3 | Writing: Influences & development |
| Nielsen, Monson | 1996 | Multiple | F | Qualitative & Descriptive | Gr. K and Teachers | Literacy Dev.: Environmental factors |
| Novak, Herman, Gearhart | 1996 | Multiple | M/F | Correlational | Gr. 2-6 | Writing: Analysis & assessment |
| Olson | 1990 | Single | F | Experiment | Gr. 6 | Writing: Products & processes |
| Pajares, Valiante | 1997 | Multiple | M | Experiment & Correlational | & Gr. 5 | Belief Systems: Attitudes and perceptions about literacy; Writing |
| Rasinski | 1990 | Single | M | Experiment | Gr. 3 | Reading: Strategies |
| Rasinski, Padak, Linek, Sturtevant | 1994 | Multiple | M/F | Experiment | Gr. 2 | Reading: Comprehension |

A Decade of Literacy Research

| | | | | | | |
|---------------------------------|------|----------|-----|------------------------------|-------------------------------|---|
| Reutzel, Cooter | 1990 | Multiple | M | Experiment | Gr. 1 | Reading: Strategies; Whole Language |
| Reutzel, Hollingsworth | 1991 | Multiple | M | Experiment | Gr. 4 | Reading: Strategies |
| Reutzel, Hollingsworth | 1991 | Multiple | M | Experiment | Gr. 6 | Belief Systems: Attitudes and perceptions about literacy |
| Reutzel, Hollingsworth | 1993 | Multiple | M | Experiment | Gr. 2 | Reading: Strategies |
| Richgels, Tomlinson, Tunnell | 1993 | Multiple | M | Descriptive of | Gr. 5 Text | Genres: Content area literacy |
| Risch, Kiewra | 1990 | Multiple | M/F | Experiment | Gr. 8 | Writing: Products & processes; Studying |
| Roberts, Samuels | 1993 | Multiple | F | Experiment | Gr. 4-6 | Writing; Literacy Mediums: Technology -related |
| Schmid, Telaro | 1990 | Multiple | M | Experiment | High School | Genres: Content Area Literacy |
| Siegel | 1990 | Single | F | Experiment/ Correlational | High School Seniors | Reading: Influences and Development |
| Simons, Elster | 1990 | Multiple | M | Descriptive | Gr. 1 | Reading: Influences and Development |
| Sindelar, Monda, O'Shea | 1990 | Multiple | M/F | Experiment | Gr. 2-5 | Reading: Strategies |
| Smith, M.C. | 1990 | Single | M | Correlational | Gr. 1, 6, 9, 12 and adults | Belief Systems: Attitudes and Perceptions about Literacy |
| Smith, M.W. | 1991 | Single | M | Descriptive | Gr. 9 | Reading: Reader response |
| Smith, M.W. | 1992 | Single | M | Descriptive | Gr. 9 | Genres: Literature- based |

A Decade of Literacy Research

| | | | | | | |
|---|------|----------|-----|---------------|---------------------------|--|
| Smith, M; Young | 1995 | Multiple | M | Correlational | Gr.7-12 | Genres:Literature-based |
| Smith, S.S.; Dixon | 1995 | Multiple | F | Descriptive | 4 yr, olds & parents | Reading: Concepts of print |
| Snapp, Glover | 1990 | Multiple | M | Experiment | Middle School & College | Reading:Strategies; Studying |
| Snider | 1997 | Single | F | Correlational | Gr.K, 2, 5 | Reading: Phonological awareness |
| Spaii, Ellermann, Reitsma | 1991 | Multiple | M | Experiment | Gr. 1 | Reading:Strategies |
| Spaulding | 1995 | Single | F | Experiment | Middle School | Writing: Products and processes |
| Stahl, Pagnucco, Suttles | 1996 | Multiple | M/F | Correlational | Gr. 1 | Reading:Strategies |
| Stewart | 1992 | Single | F | Experiment | Gr. K/1 and their parents | Belief Systems: Attitudes and perceptions about literacy |
| Stewig | 1994 | Single | M | Descriptive | Gr. 1 | Genres: Content area literacy |
| Talbert-Johnson, Salva, Sweeney, Cooper | 1991 | Multiple | M/F | Descriptive | Gr.4-high school | Writing: Handwriting |
| Toppino, Luipersbeck | 1993 | Multiple | M/F | Experiment | College Students | Assessment |
| Traw | 1996 | Single | M | Descriptive | Teachers & Administrators | Assessment; Whole Language Effects |
| Varble | 1990 | Single | F | Experiment | Grades 2 & 6 | Writing: Whole Language Effects |

A Decade of Literacy Research

| | | | | | | |
|--------------------------|------|----------|-----|---------------|-----------------------|---|
| Walberg, Ethington | 1991 | Multiple | M/F | Correlational | 17 yrs. old | Writing: Products and processes Assessment |
| Wasson, Beare, Wasson | 1990 | Multiple | M/F | Experiment | Gr. 1,3,5,7, 9, 11 | Reading: Behavior |
| White | 1995 | Single | M | Descriptive | Grade 9 | Writing: Products and processes |

Table 6 Significant Findings by Author

1. Alexander (1998)
In a replication of Goodman (1965) with 42 children grades 1-3, reading fluency was not found to be significantly associated with use of context in the process of word recognition
2. Allred (1990)
Significant gender differences were found in performance on both standardized and written spelling tests. Across all grade levels, girls scored significantly higher (all p values <.001) than boys in both tests. Cross-cultural and effective classroom strategies were not determined as variables.
3. Alvermann, et al. (1995)
Results of posttests of Newtonian principles gave evidence that students who read expository text and participated in scaffolded discussions out-performed those who read the same material in narrative texts and participated in question/answer sessions.
4. Bean (1997)
Qualitative data from interviews of pre-service teachers revealed a substantial variability in the selection and use of fourteen specific vocabulary and teaching strategies in content area literacy as taught in a microteaching strategies practicum. Two of ten teachers reported continued use of the original strategies from practicum. Eight of ten reported using one of the content area strategies in subsequent practicums.
5. Bean, et al. (1999)
Analysis of 7 students' literary journals written in response to reading multicultural novels showed that students produced more personal and interpretive reactions than simple description of events. Given the opportunity to write freely and explore character, students wrote with a sense of agency and voice while exploring ethnic and cultural identity.
6. Bean; et al (1990)
Compared with students receiving biology instruction with either pictorial analogies or teacher explanation, students provided with a combination of pictorial analogies and teacher explanation displayed significantly better comprehension on a 14-item cell structure/function matching test and a short essay question on cells.
7. Carlisle, et al. (1991)
Significant differences between groups on listening and reading subtests indicated that listening comprehension was not a valid measure of optimal functioning in reading.
8. Dale (1994)
Quantitative and qualitative data identified three characteristics of collaborative writing interactions a) amount and kinds of engagement during the writing process; b) the level of cognitive conflict; and 3) the kinds of social interactions. Successful writing interactions involved an authentic conversation about the emerging text and a level of comfort for participants to engage cognitive conflict productively.
9. Davidson, et al. (1994)
Young children did not tend to acquire particular phonemic generalizations that they were taught, but performed poorly on generalizations without prior instruction. Participants who were taught segmenting-only and segmenting plus blending showed significant transfer on tests of word reading and spelling.
10. Davis (1994)
Applying pre-reading modified story mapping resulted in 14% better inferential comprehension (p values < .0005) and 7% better literal comprehension than directed reading activity (DRA) at the third grade level. Statistically significant differences were not found at the fifth grade level.

11. Denner, et al. (1992)
Seventh and eighth grade subjects who used story impressions (clue words and telegraphic phrases from a given story) to compose a story of their own as a pre-reading activity demonstrated much greater story recall for both above and below-average readers. Students using story impressions and then writing predictions and students in the control group did not fare as well in story recall. The study supported the use of composing story impressions as an important technique for recall.
12. Dobbie, et al. (1995)
An updated review of previous decades of research, using Herrick and Okada's (1963) classification of handwriting studies, indicated that two new categories have emerged. The additional categories are the use of computers as a tool in handwriting instruction and the application of more sophisticated research designs.
13. Dreher, et al. (1990)
Metalinguistic awareness in first grade students was found to be a strong predictor of reading comprehension performance on standardized reading tests at the third and fifth grade levels. Metalinguistic awareness was defined in three parts: (a) ability to isolate language segments, (b) understanding of reading as a meaning-gathering process, and (c) understanding of terms used in reading instruction.
14. Dwyer, et al. (1993)
Students reported a strong preference for teacher-written comments on their writing over computer-generated comments by a grammar check program. Results showed an 87% preference for teacher comments due to the personal nature of the feedback, ease of understanding, and the fact that the teacher was the ultimate grader. The same group also reported liking using the computer (86%) and that word processors made writing easier (93%).
15. Eldredge (1990)
Third graders identified as poor readers showed gains in the Gates-MacGinty Reading Test Level C after having received eight weeks of pull-out instruction using a group assisted reading technique. The treatment group made greater achievement gains in reading comprehension and vocabulary than the control group.
16. Eldredge, et al. (1990)
With second grade students, phonics knowledge (recognition of the consistent graphophonic patterns in the English language) was found to have a causal impact on both reading comprehension and vocabulary. Reading comprehension was found to have a causal relationship with vocabulary. A casual relationship was indicated if change in one of the three variables measured at the beginning of the year tended to precede change in the other variables measured at the end of the year.
17. Engle, et al. (1991)
Working memory in first, third, and sixth grade students was measured as the number of words, word span and reading span recalled after being given oral directions and reading for comprehension. The number of words recalled in both the word span and the reading span tasks predicted comprehension for all grades. It was also found that as the complexity of directions increased, low-word span subjects in each grade had more difficulty performing directions than did high word span subjects.
18. Engelhard, et al. (1994)
The study analyzed writing samples from three years of state-administered writing tasks for mode of discourse and experiential demand in terms of race and gender. The quality of the writing was assessed by two criteria: topic development and conventions. Statistically significant differences

were found for gender and race. Girls wrote compositions of higher quality than did boys. White students wrote compositions of higher quality than did Black students.

19. Foote (1998)
The study was an effort to overcome internal validity problems of previous studies of higher order questioning strategies (King, 1989, 1990, 1991). The study, however, found no positive effect of student-generated versus teacher-generated higher order question as an instructional strategy.
20. Freppon, et al. (1999)
A comparison of children's acquisition of reading strategies examined skills-based versus whole language instructional settings. The study coded literacy strategies of first grade students for self-correction and substitutions that were meaningful and had letter-sound correspondence. Children in the constructivist-based whole language setting used more reading strategies and exhibited positive stance patterns.
21. Gambrell, et al. (1991)
Practicing retelling stories, without teacher instruction, was found to have a positive impact on free-recall and organizing story elements among proficient and less proficient readers. Practice in retelling stories also increased the quantity and quality of the retelling.
22. Gettinger (1993)
Error correction in spelling, understood as a two component procedure: (a) error imitation and correction and (b) repeated practice to mastery, was studied in a pretest/posttest design. Control group conditions used corrected tests with standard practice and a reduced number of words. Significantly higher weekly test scores and teacher ratings documented higher spelling scores among participants in the experimental intervention.
23. Gillingham, et al. (1992)
A multiple choice extension of cloze texts (called maze) was employed to evaluate the use of mazes as a diagnostic tool for specific reading levels and to examine the order of suggested skills acquisition. Word, sentence and paragraph replacement was elicited. The study affirmed the effectiveness of using maze texts for diagnosis and it found that mazes suggested teaching strategies for the appropriate reading level. Also it was reported that mazes were easy and quick to administer.
24. Glaubman, et al. (1997)
Quality questioning at the kindergarten level was reported as enhancing story comprehension and self-directed learning in both short- and long-term testing. Examining the effects of children's questioning found that theory-based training was more efficacious than controls, while metacognitive-based questioning was superior to active processing.
25. Graham (1998)
As one might expect, handwriting speed contributed significantly to the prediction of legibility in students at grades 1-9. Nevertheless, the development of handwriting speed and legibility produced other interesting results. In the intermediate grades handwriting speed developed unevenly yet tended to level out as students approached adult-like handwriting by 9th grade. Girls' handwriting was more legible and was faster at grades 1, 6 and 7. Right-handers were found to be faster than left-handers, but no noticeable differences were found in legibility.
26. Graham, et al. (1993)
Four empirically-based spelling lists of children's writing were consulted to form a single, basic spelling list for use across grade levels. Words that accounted for 80% of children's writing were included. Words that were theme specific, religious, outdated, or not commonly used by children were eliminated. Commonly used words that were not included in the empirical lists were added.

Words were assigned grade levels based upon difficulty and patterns of usage. The result was a basic spelling list of 850 words.

27. **Graham, et al. (1998)**
At grades 4-9, four styles of handwriting were investigated for speed and legibility. The styles of handwriting were as follows: manuscript, cursive, mixed-mostly manuscript, and mixed-mostly cursive. The handwriting of students who used a mixed style was faster than a use of a standard style exclusively. Furthermore it was reported that students using a mixed-mostly cursive style generally scored higher in legibility.
28. **Grejda, et al. (1992)**
Revising writing was found to be positively impacted by the use of word processing on a computer. In a comparison of writing with pencil and paper to using a computer for writing and a combination of the two, it was found that students using the computer corrected more first draft errors and conducted more organizational revisions. Yet, no significant differences were found with regard to holistic writing quality.
29. **Griffin, et al. (1995)**
A combination of the use of graphic organizers and explicit instruction in their application was found to positively effect reading recall of novel content in social studies texts. Students who read the same material without explicit instruction in the use of graphic organizers demonstrated the same level of recall as students who read and did not use graphic organizers.
30. **Haynes, et al. (1992)**
In an analysis of literature preferences of fourth grade students using an inventory of 68 annotated titles, no single category of literature was predominant. Nevertheless, boys and girls preferred traditional and modern fantasy, realistic fiction about romance and adjustment, historical fiction, science and health, and biography. Over and above traditional classifications and genre, it was posited that content was the most powerful factor for establishing a literature preference.
31. **Helwig, et al. (1999)**
Using a video format to accommodate students reading in math revealed that students with higher math proficiency who struggled with reading scored higher as a result of the accommodation. Students with lower math proficiency who struggled with reading and students with average to high math proficiency but with no reading difficulties did not demonstrate significant differences as a result of the video accommodation.
32. **Hirumi, et al. (1991)**
Students using a concept tree, as a graphic organizer of textual material, outperformed those who did not in a pre-posttest measure. Also the study reported that those students using the concept tree exhibited a higher degree of attention, confidence and satisfaction with the instructional material.
33. **Hollingsworth, et al. (1990)**
In a test of the impact of attitudes on reading comprehension, students were instilled with a range of attitudes regarding reading about a fictitious land. Prior to reading, one group was primed with a positive attitude about the reading, the second group was primed for a neutral attitude, and the third group was primed with a negative attitude about the reading. Results showed no significant differences in reading comprehension that could be attributed to attitude about the content-related reading.
34. **Holmes, et al. (1995)**

The mean scores of students who used computer programs to learn the use of Latin and Greek root words in deciphering English terms was significantly higher than the mean scores of students in the control groups.

35. Homan (1993)
Repeated reading was found to positively impact fluency and reading comprehension. In the current study, however, the researchers compared rereading with non-repetitive reading strategies. The non-repetitive strategies included echo reading, cloze reading, and unison reading. The study indicated equivalent benefits for repetitive and non-repetitive methods with both showing significant comprehension improvement over a 7 week period.
36. Jacobson, et al. (1992)
Reading instruction perceptions and information sources of 1,244 U.S. elementary principals were inventoried. The principals reported four major unresolved issues: (a) whole language versus basal approaches; (b) assessment of students' reading progress; (c) the use of trade books in place of basals; and (d) ability grouping students for reading instruction. The most frequently used sources of information regarding reading instruction were the following: (a) professional education magazines, (b) personal contacts with specialists and colleagues, and (c) newspapers. It was noted that although college classes in reading education were not reported, they were rated high in utility along with personal contacts with reading specialists.
37. Jitendra, et al. (1998)
Explicit schema-based instruction and traditional instruction were compared in mathematics with students at risk of failure and those with mild disabilities. Initial and delayed posttest results indicated that both groups' performance increased in math skill with problem solving and generalizing strategies. The schema-based instructional group did demonstrate higher performance than traditional instruction.
38. Kelley, et al. (1994)
Reciprocal teaching strategies (summarizing, self-questioning, clarifying, and predicting) were assessed with primary level, poor performing students in reading comprehension. Test results indicated gains by both experimental and control groups in story reading and attention.
39. Ketner, et al. (1997)
Sixty-six primary teachers were administered the Theoretical Teacher Orientation to Reading Profile and Primary Teacher Questionnaire. The results indicated that there appeared to be a conceptual congruence between developmentally appropriate practice and teacher theoretical orientation in reading.
40. Klingele, et al. (1990)
The study determined a number of non-instructional variables in fourth grade reading achievement scores in the state of Arkansas. Four variables were identified as having significant relationships to reading scores. The percentage of minority students and the percentage of students receiving free lunches had negative relationships. The percentage of staff holding master's degrees or higher and the relative wealth of the school districts in question had a positive relationship to reading scores.
41. Knight (1992)
A positive perception of teacher behavior was related to the use of multiple reading strategies among elementary students. The following reading strategies were identified: rapid reading, predicting outcomes, and seeking help from peers.
42. Knudson (1992)

Argumentative writing samples at 10th and 12th grades indicated variable emphasis in use of and mastery of writing components including claims and data, opposition, and warrant. The use of data and warrants was reported as probably influenced by prior knowledge about the topic.

43. Knudson (1995)
Grade level, gender, and attitude toward writing were confirmed as strong predictors of writing achievement in grades 1-6. Specifically, female students in upper grades who evidence a positive attitude toward writing are more likely to be above-average writers. It was also reported that students see writing in various stages beginning with drawing and then printing and following with application to specific writing strategies.
44. Knudson (1998)
College students' writing was assessed and instructional strategies formed and evaluated accordingly. Based upon a holistic assessment of 250 writing exams of the University of California writing exam, instruction was designed to address summary writing and summarizing techniques, synthesis, and argumentative writing. Evaluation of the instructional strategies found that summarization was effective for improving position, support, macro-level skills, and micro-level skills. Conversely, the results for synthesis instruction were less impressive.
45. Kolich (1991)
Computer assisted vocabulary development was assessed using a program that applied definition-based and sentence context-based instructional strategies. The study found that a mixed approach of both strategies was more beneficial for students than a definition-based approach only. The mixed approach included sentence contexts and synonym clues as well as definitions.
46. Konopak, et al. (1994)
Orientations toward content area reading were found to be inconsistent among pre-service and in-service secondary teachers. When asked to select belief statements about practice and accompanying lesson plans, only teachers holding reader-based beliefs chose corresponding vocabulary and comprehension plans. Pre-service teachers favored an interactive model, but selected a reader-based instructional approach. In-service teachers varied in their beliefs and instructional approach.
47. Kush, et al. (1996)
Attitudes toward recreational and academic reading appear to shift over time. Among students in grades 1-4 it was reported that attitudes toward reading remain relatively positive in the first three years. After three years, attitudes dropped for both recreational and academic reading. Although non-significant grade differences occurred, it was found that girls expressed more positive attitudes toward reading than did boys. Overall girls demonstrated significantly more positive attitudes toward reading than did boys.
48. Littman, et al. (1998)
Professional reading of high school academic teachers was surveyed and analyzed in terms of the extent to which they read professional journals, what they read, and connections between their reading and other professional developmental activities. Half of the surveyed teachers reported reading at least one professional journal a year. Most teachers read subject specific journals over general education periodicals. Teachers who read professional journals were more likely to be active in professional organizations than non-readers. Among subject areas, a smaller proportion of social studies teachers than others reported reading professional journals and being affiliated with professional organizations.
49. McAuley, et al. (1992)
Two commercial computer spelling programs were compared (Add-A-Word and Compu Spell) with five underachieving elementary school students. Over the course of an entire school year, spelling accuracy was documented. Equivalent positive benefits were noted for the programs.

50. McGill, et al. (1999)
Stocking classrooms with a large supply of high-quality library books appeared to have a positive impact on literacy; however classrooms scored significantly higher on every literacy measure when the classroom teacher received professional training in the use and instruction with the books.
51. McLain, et al. (1991)
An evaluation of the Index of Reading Awareness (Jacobs and Paris, 1986) as a valid measurement of metacognition concluded that it should be used cautiously. The adequacy of the scale in its present form is acceptable if used as a total score and only as one measure of the reading process in a portfolio assessment.
52. McLaughlin (1992)
Providing written feedback on reading assignments for students enrolled in a self-contained classroom for behaviorally disordered children and youth was evaluated. The outcomes indicated that written feedback enhanced greater reading accuracy and was reported as favorable by the students themselves.
53. McMahan, et al. (1998)
The Literacy Acquisition Perception Profile and the Inventory of Literacy Indicators were used to evaluate the relationship between kindergarten teacher's perceptions of literacy acquisition and children's literacy involvement with classroom materials. Teachers were identified as adopting a reading readiness skills or an emergent literacy perspective. Children in classrooms of emergent literacy teachers participated in a higher number and greater variety of voluntary literacy events than those in the reading readiness skills classrooms. Additionally, the quality and quantity of literacy materials in the emergent literacy classrooms were found to be much higher than the materials in the reading readiness skills classrooms.
54. McMahan, et al. (1995)
An assessment of student-led literature discussions in fifth grade showed that students adopted leadership roles, exhibited various interactive patterns, and that they helped each other conduct their discussions. The researchers concluded that students could indeed facilitate one another's learning, but the teacher had a significant role in monitoring student discourse and planning for instructional needs.
55. Mahn, et al. (1990)
Cognitive behavior modification was investigated using an experimental design among first graders in reading groups. Significant differences were found among the students who were trained to develop self-guiding statements to use in task performance. Specifically, students who engaged in problem definition, strategy selection, and the development of planned behavior fared better in task performance than the control group.
56. Mavrogenes, et al. (1993)
Influences on writing development of low-income African-American children were studied. Results indicated that the subjects evidenced low writing ability, they did not like to write, they did little writing, and what writing they did emphasized mechanics over content. There were strong correlations between writing ability and effort, attitude, teacher and student expectations, maturity, motivation, self-confidence, and behavior.
57. Mavrogenes, et al. (1994)
Written compositions of African-American 5th grade students were analyzed according to structure and content and thinking as well as other non-academic variables. Results indicated that writing achievement was low. Significant correlations appeared between affective characteristics and both

- structure and thinking. Girls significantly out-scored boys on seven variables. Mean scores for thinking tended to increase when the topic was closest to the students' personal experiences.
58. Meyer, et al. (1993)
What happens in the kindergarten classroom, rather than the length of the school day (half-day versus full-day) or time of instruction (morning versus afternoon) was found to be the significant difference in academic achievement as measured by the Wide Range Achievement Test, the Woodcock Reading Comprehension Paragraphs, and researcher classroom observation.
 59. Meyer, et al. (1994)
The assumption that time spent reading to children enhanced reading achievement was severely challenged by this study. The amount of time kindergarten teachers spent reading to their students was found to have a negative correlation to the children's reading achievement. Similarly, the amount of time first grade teachers and parents spent reading to the students was found to be unrelated to reading achievement. Active involvement with literacy development activities was found to have a greater positive impact on reading achievement.
 60. Miller, et al. (1997)
The ways that teachers structure reading and language arts assignments was found to positively influence the students' motivation. Eight participating teachers implemented the following modifications for instruction: (a) to write multiple paragraphs, (b) to collaborate with peers, and (c) to self-monitor progress over extended time periods. How the teachers implemented the desired modifications was found to positively impact student motivation more than the specific accommodations.
 61. Moore, et al. (1993)
Using drama and drawing was found to be effective as planning activities for narrative writing. Furthermore, drama and drawing groups in the study were more successful in their narrative writing projects than a control group than employed a traditional discussion format for language arts instruction.
 62. Nielsen, et al. (1996)
Literacy development at the kindergarten level was investigated in terms of enrollment age and curricular approaches (emergent literacy versus reading readiness). Students at the lowest enrollment age in classrooms identified as emergent literacy showed greater gains in literacy development than did those of higher enrollment age in the reading readiness classroom settings.
 63. Novak, et al. (1996)
The study presented techniques for establishing the reliability and validity of performance-based assessments of student writing. Three methods were applied to the evaluation of rubrics for holistic scoring: percentage agreement, correlations between rater pairs, and generalizability studies. Although reliability and developmental validity were established, correlational patterns were not clear.
 64. Olson (1990)
The impact of peer feedback on the quality of sixth grade student writing and the amount and kind of revision behaviors were studied. Quality of writing analyses revealed significant differences across groups on both rough and final drafts. Peer feedback appeared to help students write initially superior rough drafts, but was not consistently linked to improved content in final drafts. Successful surface structure editing occurred with or without peer feedback.
 65. Pajares, et al. (1997)
Self-efficacy belief was found to be a strong predictor of writing performance for 5th grade girls and boys. Writing aptitude influenced a sense of self-efficacy, writing apprehension, and perceived usefulness of writing. Although girls reported a higher sense of self-efficacy, found

- writing more useful, and had lower apprehension than did boys. No differences in performance were found.
66. Rasinski (1990)
Repeated reading and listening-while-reading techniques were found to be beneficial in developing fluency in reading. No significant differences were found between the two methods.
 67. Rasinski, et al. (1994)
Fluency development lessons given for 10-15 minutes as a supplement to the regular reading curriculum in urban second grade classrooms resulted in fluency gains. Participating teachers responded positively to the instructional technique.
 68. Reutzel (1990)
In a comparison of four 1st grade classrooms (two employed whole language strategies and routines, two utilized a basal skills-based program), the whole language strategies classrooms yielded superior standardized test scores to classrooms featuring more traditional basal skills-based programs.
 69. Reutzel, et al. (1991)
A comparison of reading comprehension on fourth grade criterion-reference tests found no significant differences among students who spent 30 minutes a day in sustained reading versus students who combined sustained reading for 15 minutes a day with skills instruction and students that received skills-only instruction.
 70. Reutzel, et al. (1991)
Experimentally created topic-related text did not impact reading attitudes or immediate recall. Delayed recall was negatively impacted by experimentally created topic-related texts, however.
 71. Reutzel, et al. (1993)
Using the oral recitation lesson technique was found to develop fluency and comprehension in reading. Significant differences in the treatment group were reported to the control group that employed traditional round robin reading for instruction. Researchers claim a tentative causal relationship between the treatment and reading fluency and comprehension.
 72. Richgels, et al. (1993)
Historical novels and informational trade books compared favorably to history textbooks. Trade book passages contained longer, more complex sentences, achieved deeper elaboration of a smaller subset of topics and more often used macro-level organizing predicates than did textbook passages. Other indicators such as better structure and coherence suggested that trade books were more comprehensible than textbooks.
 73. Risch, et al. (1990)
Note taking in various forms and/or content did not affect test performance directly. In terms of gender, however, girls tended to take more notes than boys and they scored higher on factual recall tests due to the amount of notes taken. No differences in performance were found between those who utilized their own notes solely, the group that relied on personal and expert notes, and the group that relied on listening to the lectures and used expert notes.
 74. Roberts, et al. (1993)
Traditional handwriting remediation using pencil and paper was found to be superior to commercial computer-based programs. In a comparison of pencil and paper handwriting instruction to Apple Graphics and Touch Window, results indicated that the traditional group demonstrated significant improvements from pre- to posttest on five measures. The computer-based programs yielded improvements on two measures.

75. Schmid, et al. (1990)
Concept mapping (drawing a network of meaningful connections) by high school students learning biology facilitated low-ability learner's performance, but only on a relational knowledge level. It was also reported that the technique required little effort or resource cost to implement.
76. Siegel (1990)
Home, school, and extracurricular experiences from preschool through high school were identified and evaluated as to their importance in acquiring adult literacy. Early childhood experiences were found to be an important predictor of adult reading status.
77. Simons, et al. (1990)
An examination of four 1st grade reading texts (basal readers and trade books) revealed that different series varied in the degree to which text interpretation was picture dependent. The study found the decrease in illustrations from beginning to end problematic.
78. Sindelar, et al. (1990)
Reading fluency and recall as a result of repeated reading was found to be beneficial for instructional and mastery level readers. A comparison of learning disabled and non-disabled instructional level readers showed no significant differences. Both groups reported gains in fluency and recall.
79. Smith (1990)
A longitudinal study (40 years) of the development of reading attitudes gave evidence that reading attitudes are stable over time. The results also showed that the early adult measure accounted for one third of the variance on the adult attitude measure and that early childhood measures seem to be poor predictors of adult attitudes.
80. Smith (1991)
Successful readers tended to rely more heavily on personal experiences in reader responses than did less-successful readers. The effect of the type of story and the orientation of the students toward reading showed no significant differences.
81. Smith (1992)
Direct instruction of 9th grade students' understanding of unreliable narrators in stories was found to have no direct impact on their interpretive operations. It was reported that some of the students did appear to be less submissive to the text as a result of the treatment.
82. Smith, et al. (1995)
A survey of liking a story (defined in three parts as liking the effects, the reading experience, and surface features) was evaluated with readers 7th to 12th grade. The survey was found to exhibit construct validity and that it implemented a single variable leading the evaluators to affirm its use to assess secondary students liking of particular stories.
83. S. Smith, et al. (1995)
In a comparison of what literacy concepts lower-income and middle-class 4-year-olds bring to preschool; the study found that even as young as 48 months, children from lower-income families are at a distinct disadvantage to their middle-class counterparts with regard to understanding written language. Limited knowledge of literacy was not confined to impoverished preschoolers. The combined results suggested that few experiences with print were the dominant factor and not level of income.

84. Snapp, et al. (1990)
Students at the middle school and college level who used advanced organizers to formulate study questions were compared to control groups. The results indicated that, at the middle school level, the use of advance organizers had a positive impact on the formation of lower-order study questions. At the college level, use of advanced organizers positively impacted the development of higher order study questions.
85. Snider (1997)
The relationship between phonemic awareness and later reading achievement was examined in a longitudinal study beginning at 1st grade with follow-up testing at 2nd and 5th grades. Results indicated a significant correlation between performance on some phonemic awareness tasks and reading achievement in second grade. Students from the lowest quartile were retested three years later and it was found that they did not read fluently even though they were a heterogeneous group. The researcher cautioned against using the study for the purposes of justifying retention or identification for special education.
86. Spaai, et al. (1991)
Learning to read single words by whole-word and segmented-word feedback were compared with first grade students within 9 months and 4 months of reading experiences. In both cases the whole-word feedback showed greater gains in reading words than did the segmented feedback. Segmented feedback was found to be an intermediate strategy between whole-word feedback and no feedback.
87. Spaulding (1995)
The psychological presence of teachers was found to have a varying degree of impact on students' writing tasks levels of engagement. Among students reported as having a high level of linguistic competence, less psychological presence of the teacher was linked to higher levels of engagement. Conversely, students reported as having low levels of linguistic competence were more engaged in writing when the teacher had a greater psychological presence.
88. Stahl, et al. (1996)
The adaptation of a particular stance in classroom atmosphere was found to be more influential in reading achievement than a particular philosophical stance toward instruction. In a comparison of whole language versus "traditional" basal reading programs the finding suggested that the pacing of instruction rather than the mode of instruction impacted reading achievement. Students in classrooms that provided instruction at a more demanding pace showed significant differences in reading achievement gains.
89. Stewart (1992)
Kindergarten children were found to be able to describe their awareness of how they are learning to read. Participating children in whole language settings provided individualized and small group instruction with language experience, shared reading and phonics support were able to provide greater detail and more comprehensive responses than those in whole group phonics-based programs.
90. Stewig (1994)
A study of the development of visual literacy using the work of Homer Winslow and Paul Klee with urban and suburban first grade students found a variety of significant difference from the first sampling to the second. In the first sampling of dictation, urban children exceeded suburban children in their dictated descriptions of the paintings. In the second sampling, at the end of school year, suburban children exceeded urban children in the quantity and quality of descriptions provided.

91. Talbert-Johnson, et al. (1991)
Handwriting legibility was measure by function rather than topographical units of measure. There was no overlap found between the categories of easy-to-read or difficult-to-read. Further, there was small variability with easy-to-read and, conversely, large variability with difficult-to-read samples.
92. Toppino, et al. (1993)
A negative suggestion effect was found to be widespread with objective tests. The study found that college students were more likely to identify false information as true because it had appeared on a test. The finding was replicated with verbatim as well as paraphrased informational items.
93. Traw (1996)
No significant differences over time in standardized test scores were found in two mid-sized, mid-western school districts prior to and after a philosophical commitment to whole language instruction was implemented. Teachers and administrators expressed a pronounced preference for whole language instruction due to its positive affective and social effects.
94. Varble (1990)
The writing of students taught using a whole language or a traditional approach was analyzed at the second and the sixth grade level. Findings reported that second grade students taught using whole language produced better writing samples in terms of quality of content. No significant differences were found with regard to mastery of mechanics. No significant differences emerged at the sixth grade level in either approach.
95. Walberg, et al. (1991)
In a U.S. national assessment of writing performance and motivation, a random sample of 288 seventeen-year old students from a larger sample of 28,860 was analyzed. Writing performance was considerably less predictable than writing motivation. Researchers speculated that the reason was due to the generally poor achievement on the writing task.
96. Wasson, et al. (1990)
The behaviors of poor readers as compared to good readers found that no significant differences starting work on assignments, having necessary materials available, making unacceptable noise, being out of place, or making unacceptable contact with other persons or their property. Poor readers, however, differed from good readers in that they were off task more and volunteered less than good readers. The results suggested that poor readers could be viewed as uninvolved students.
97. White (1995)
The use of autobiographical writing prior to reading with ninth graders was found to result in more substantial discussion and understanding characters at a more abstract level than those who did not participate in the treatment.



U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)
Reproduction Release (Specific Document)



I. DOCUMENT IDENTIFICATION:

| | |
|--|---------------------------------|
| Title: <i>A Decade of Literary Research in the Journal of Educational Research</i> | |
| Author(s): <i>Ruth E. Knudson, Joan Leikam Theurer, and Paul Boyd-Batstone</i> | |
| Corporate Source: <i>None</i> | Publication Date: <i>4/8/02</i> |

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign in the indicated space following

| The sample sticker shown below will be affixed to all Level 1 documents | The sample sticker shown below will be affixed to all Level 2A documents | The sample sticker shown below will be affixed to all Level 2B documents |
|--|--|--|
| PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY _____ _____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) | PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY _____ _____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) | PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY _____ _____ TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) |
| Level 1 | Level 2A | Level 2B |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g. electronic) and paper copy. | Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only | Check here for Level 2B release, permitting reproduction and dissemination in microfiche only |

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche, or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

| | | |
|--|--|----------------------------|
| Signature: <i>Ruth E. Knudson</i> | Printed Name/Position/Title: <i>Dr. Ruth E. Knudson, Professor</i> | |
| Organization/Address: <i>College of Education, CSU Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840</i> | Telephone: <i>562 985-7690</i> | Fax: <i>(714) 993-9800</i> |
| | E-mail Address: <i>rKnuded@aol.com</i> | Date: <i>4/8/02</i> |

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another email is

rKnuded@aol.com