

Classified Index

Volumes 11 and 12, 1980-81

Author Index

- Adams, V. M., & McLeod, D. B. Aptitude treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
- Adi, H., & Pulos, S. Individual differences and formal operational performance of college students. *11:150-156*, Mar. 1980.
- Armstrong, J. M. Achievement and participation of women in mathematics: Results of two national surveys. *12:356-372*, Nov. 1981.
- Austin, J. D. When to allow student questions on homework. *11:71-75*, Jan. 1980.
- Becker, A. D., Fennema, E., Wolleat, P. L., & Pedro, J. D. Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
- Becker, A. D., Wolleat, P. L., Pedro, J. D., & Fennema, E. Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
- Becker, J. R. Differential treatment of females and males in mathematics classes. *12:40-53*, Jan. 1981.
- Behr, M. J., & Wheeler, M. M. The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
- Bestgen, B. J., Reys, R. E., Rybolt, J. F., & Wyatt, J. W. Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-136*, Mar. 1980.
- Branca, N. A. Communication of mathematical structure and its relationship to achievement. *11:37-49*, Jan. 1980.
- Brassell, A., Petry, S., & Brooks, D. M. Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
- Briggs, J. T., & McLeod, D. B. Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
- Bright, G. W., Harvey, J. G., & Wheeler, M. M. Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.
- Brooks, D. M., Brassell, A., & Petry, S. Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
- Brophy, J. E., Everton, C. M., & Emmer, E. T. Predictors of effective teaching in junior high mathematics classrooms. *11:167-178*, May 1980.
- Brown, R. Toward research significance. *11:76-77*, Jan. 1980.
- Bruckheimer, M., Vinner, S., & Hershkowitz, R. Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.
- Bruckheimer, M., & Zehavi, N. A method of analyzing tests using the teacher's predictions. *12:142-151*, Mar. 1981.
- Burton, G. M. Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
- Bussman, H., & Kulm, G. A phase-ability model of mathematics problem solving. *11:179-189*, May 1980.
- Carnine, D. Preteaching versus concurrent teaching of the component skills of a multiplication algorithm. *11:375-379*, Nov. 1980.
- Carnine, D. W., & Stein, M. Organizational strategies and practice procedures for teaching basic facts. *12:65-69*, Jan. 1981.
- Carpenter, T. P., Hiebert, J., & Moser, J. M. Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
- Carry, L. R. Dissertation publication: The issue of joint authorship. *11:391-393*, Nov. 1980.
- Carry, L. R., & DuRapau, V. J. Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
- Charles, R. I. Exemplification and characterization moves in the classroom teaching concepts. *11:10-21*, Jan. 1980.
- Coburn, T. G., Shumway, R. J., White, A. L., Wheatley, G. H., Reys, R. E., & Schoen, H. L. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Cooney, T. J., Hirstein, J. J., & Davis, E. J. The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
- Davis, E. J., Cooney, T. J., & Hirstein, J. J. The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
- Denmark, T., & Kepner, H. S., Jr. Basic skills in mathematics: A survey. *11:104-123*, Mar. 1980.
- DeVecchi, J. M. The construction of a logical-empirical structure of knowledge for differential calculus using a theoretical framework based on learning hierarchy theory and order theory. *12:163-164*, May 1981.
- Dossey, J. A. Concept teaching strategy length. *11:235-238*, May 1980.
- DuRapau, V. J., & Carry, L. R. Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
- Duval, C. M. Differential teacher grading behavior toward female students of mathematics. *11:202-213*, May 1980.
- Emmer, E. T., Everton, C. M., & Brophy, J. E. Predictors of effective teaching in junior high mathematics classrooms. *11:167-178*, May 1980.
- Everton, C. M., Emmer, E. T., & Brophy, J. E. Predictors of effective teaching in junior high mathematics classrooms. *11:167-178*, May 1980.
- Favreau, M., & Lemoyne, G. Piaget's concept of number development: Its relevance to mathematics. *12:179-196*, May 1981.
- Fennema, E. Women and mathematics: Does research matter? *12:380-385*, Nov. 1981.
- Fennema, E., Wolleat, P. L., Pedro, J. D., & Becker, A. D. Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
- Fennema, E., Wolleat, P. L., Pedro, J. D., & Becker, A. D. Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
- Frandsen, H., & Hector, J. H. Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
- Friesen, C. D., Schoen, H. L., Jarrett, J. A., & Urbatsch, T. D. Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.

- Geeslin, W. E., & Shar, A. O. Children's spatial-perceptual preferences: A cross-cultural comparison. *11:156-160*, Mar. 1980.
- Ginsburg, H. P., & Houlihan, D. M. The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
- Harvey, J. G., Bright, G. W., & Wheeler, M. M. Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.
- Hector, J. H., & Frandsen, H. Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
- Hershkowitz, R., Vinner, S., & Bruckheimer, M. Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.
- Hiebert, J. The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-165*, May 1980.
- Hiebert, J. Cognitive development and learning linear measurement. *12:197-210*, May 1981.
- Hiebert, J., Carpenter, T. P., & Moser, J. M. Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
- Hirstein, J. J., Cooney, T. J., & Davis, E. J. The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
- Houlihan, D. M., & Ginsburg, H. P. The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
- Ibarra, C. G., & Lindvall, C. M. Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.
- Jarrett, J. A., Schoen, H. L., Friesen, C. D., & Urbatsch, T. D. Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
- Jencks, S. M., & Peck, D. M. Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
- Juills, P. A., & Threadgill-Sowder, J. Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.
- Kansky, B., & Olson, M. Mathematical preparation versus career aspirations: Sex-related differences among college-bound Wyoming high school seniors. *12:375-379*, Nov. 1981.
- Kepner, H. S., Jr., & Denmark, T. Basic skills in mathematics: A survey. *11:104-123*, Mar. 1980.
- Kepner, H. S., Jr., & Swafford, J. O. The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.
- Kidder, R. F., & Lamb, C. Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
- Knifong, J. D. Computational requirements of standardized word problem tests. *11:3-9*, Jan. 1980.
- Kraus, W. H. Using a computer game to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.
- Kulm, G., & Bussman, H. A phase-ability model of mathematics problem solving. *11:179-189*, May 1980.
- Lamb, C., & Kidder, R. F. Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
- Land, M. L., & Smith, L. R. Student perception of teacher clarity in mathematics. *11:137-146*, Mar. 1980.
- Lemoine, G., & Favreau, M. Piaget's concept of number development: Its relevance to mathematics. *12:179-196*, May 1981.
- Lesh, R. (Review) Research in mathematics education. *11:394-398*, Nov. 1980.
- Lindvall, C. M., & Ibarra, C. G. Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.
- Lorenz, J. H. Attributions used by mathematics teachers in assessing achievement. *11:63-66*, Jan. 1980.
- McLeod, D. B., & Adams, V. M. Aptitude treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
- McLeod, D. B., & Briggs, J. T. Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
- Meyer, R. Intellectual abilities that discriminate good and poor problem solvers. *12:156-159*, Mar. 1981.
- Mezynski, K., & Stanley, J. C. Advanced placement oriented calculus for high school students. *11:347-355*, Nov. 1980.
- Mitchellmore, M. C. Prediction of developmental stages in the representation of regular space figures. *11:83-93*, Mar. 1980.
- Moser, J. M., Carpenter, T. P., & Hiebert, J. Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
- Olson, M., & Kansky, B. Mathematical preparation versus career aspirations: Sex-related differences among college-bound Wyoming high school seniors. *12:375-379*, Nov. 1981.
- Peck, D. M., & Jencks, S. M. Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
- Pedro, J. D., Fennema, E., Wollat, P. L., & Becker, A. D. Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
- Pedro, J. D., Wollat, P. L., Becker, A. D., & Fennema, E. Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
- Petry, S., Brassell, A., & Brooks, D. M. Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
- Reys, R. E., Bestgen, B. J., Rybolt, J. F., & Wyatt, J. W. Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-136*, Mar. 1980.
- Reys, R. E., Shumway, R. J., White, A. L., Wheatley, G. H., Coburn, T. G., & Schoen, H. L. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Richards, J., & von Glasersfeld, E. Jean Piaget, psychologist of epistemology: A discussion of Rotman's *Jean Piaget: Psychologist of the real*. *11:29-36*, Jan. 1980.
- Roitman, J. (Review) Women and the mathematical mystique. *12:231-234*, May 1981.
- Rybolt, J. F., Bestgen, B. J., Reys, R. E., & Wyatt, J. W. Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-136*, Mar. 1980.
- Sandman, R. S. The mathematics attitude inventory: Instrument and user's manual. *11:148-149*, Mar. 1980.
- Schoen, H. L., Friesen, C. D., Jarrett, J. A., & Urbatsch, T. D. Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
- Schoen, H. L., Shumway, R. J., White, A. L., Wheatley, G. H., Reys, R. E., & Coburn, T. G. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Schoenfeld, A. On useful research reports. *11:389-391*, Nov. 1980.
- Schoenfeld, A. H. (Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.
- Shar, A. O., & Geeslin, W. E. Children's spatial-perceptual preferences: A cross-cultural comparison. *11:156-160*, Mar. 1980.
- Shumway, R. J., White, A. L., Wheatley, G. H., Reys, R. E., Coburn, T. G., & Schoen, H. L. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Silver, E. A. Recall of mathematical problem information: Solving related problems. *12:54-64*, Jan. 1981.
- Silver, E. A. (Review) Task variables in mathematical problem solving. *12:234-238*, May 1981.
- Smith, L. R., & Land, M. L. Student perception of teacher clarity in mathematics. *11:137-146*, Mar. 1980.
- Souviner, R. J. Cognitive competence and mathematical development. *11:215-224*, May 1980.
- Stanley, J. C., & Mezynski, K. Advanced placement oriented calculus for high school students. *11:347-355*, Nov. 1980.
- Stein, M., & Carnine, D. W. Organizational strategies and practice procedures for teaching basic facts. *12:65-69*, Jan. 1981.
- Suydam, M. N., & Weaver, J. F. Research on mathematics education reported in 1979. *11:241-320*, July 1980.
- Suydam, M. N., & Weaver, J. F. Research on mathematics education reported in 1980. *12:241-319*, July 1981.
- Swafford, J. O. Sex differences in first-year algebra. *11:335-346*, Nov. 1980.

- Swafford, J. O., & Kepner, H. S., Jr. The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.
- Szetela, W. Calculators and the teaching of ratios in grade 7. *11:67-70*, Jan. 1980.
- Threadgill-Sowder, J., & Juilfs, P. A. Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.
- Urbatsch, T. D., Schoen, H. L., Friesen, C. D., & Jarrett, J. A. Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
- Vest, F. College students' comprehension of conjunction and disjunction. *12:212-219*, May 1981.
- Vinner, S., Hershkowitz, R., & Bruckheimer, M. Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.
- von Glasersfeld, E. An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.
- von Glasersfeld, E., & Richards, J. Jean Piaget, psychologist of epistemology: A discussion of Rotman's *Jean Piaget: Psychologist of the real*. *11:29-36*, Jan. 1980.
- Wagner, S. Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
- Weaver, J. F., & Suydam, M. N. Research on mathematics education reported in 1979. *11:241-320*, July 1980.
- Weaver, J. F., & Suydam, M. N. Research on mathematics education reported in 1980. *12:241-319*, July 1981.
- Wheatley, C. L. Calculator use and problem-solving performance. *11:323-334*, Nov. 1980.
- Wheatley, G. H., Shumway, R. J., White, A. L., Reys, R. E., Coburn, T. G., & Schoen, H. L. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Wheeler, M. M., & Behr, M. J. The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
- Wheeler, M. M., Bright, G. W., & Harvey, J. G. Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.
- White, A. L., Shumway, R. J., Wheatley, G. H., Reys, R. E., Coburn, T. G., & Schoen, H. L. Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Williams, E. An investigation of senior high school students' understanding of the nature of mathematical proof. *11:165-166*, May 1980.
- Wollett, P. L., Fennema, E., Pedro, J. D., & Becker, A. D. Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
- Wollett, P. L., Pedro, J. D., Becker, A. D., & Fennema, E. Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
- Wyatt, J. W., Bestgen, B. J., Reys, R. E., & Rybolt, J. F. Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-136*, Mar. 1980.
- Zehavi, N., & Bruckheimer, M. A method of analyzing tests using the teacher's predictions. *12:142-151*, Mar. 1981.

Subject Index

ACHIEVEMENT

- Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
- Achievement and participation of women in mathematics: Results of two national surveys. *12:356-372*, Nov. 1981.
- Advanced placement oriented calculus for high school students. *11:347-355*, Nov. 1980.
- Attributions used by mathematics teachers in assessing achievement. *11:63-66*, Jan. 1980.
- Cognitive competence and mathematical development. *11:215-224*, May 1980.
- Communication of mathematical structure and its relationship to achievement. *11:37-49*, Jan. 1980.
- Exemplification and characterization moves in the classroom teaching of geometry. *11:10-21*, Jan. 1980.
- Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
- Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
- Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
- Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.
- Mathematical preparation versus career aspirations: Sex-related differences among college-bound Wyoming high school seniors. *12:375-379*, Nov. 1981.
- Predictors of effective teaching in junior high mathematics. *11:167-177*, May 1980.
- Sex differences in first-year algebra. *11:335-346*, Nov. 1980.
- Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
- Student perception of teacher clarity in mathematics. *11:137-146*, Mar. 1980.
- When to allow student questions on homework. *11:71-75*, Jan. 1980.

ADDITION AND SUBTRACTION

- The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
- Cognitive competence and mathematical development. *11:215-224*, May 1980.
- Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.
- Organizational strategies and practice procedures for teaching basic facts. *12:65-69*, Jan. 1981.
- Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.
- Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
- Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.
- Using a computer game to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.

ALGEBRA

- Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
- The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
- The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.
- Sex differences in first-year algebra. *11:335-346*, Nov. 1980.

APTITUDE AND ABILITY

- Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
- Aptitude-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
- Intellectual abilities that discriminate good and poor problem solvers. *12:156-159*, Mar. 1981.
- Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
- Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
- Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment study. *11:367-374*, Nov. 1980.

A phase-ability model of mathematics problem solving. *11:179-189*, May 1980.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.
Women and mathematics: Does research matter? *12:380-385*, Nov. 1981.

ATTITUDE

Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-135*, Mar. 1980.
Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
The mathematics attitude inventory: Instrument and user's manual. *11:148-149*, Mar. 1980.
Sex differences in first-year algebra. *11:335-346*, Nov. 1980.
Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.

CALCULATORS AND COMPUTERS

Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
Calculator use and problem-solving performance. *11:323-334*, Nov. 1980.
Calculators and the teaching of ratios in grade 7. *11:67-70*, Jan. 1980.
Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
Using a computer game to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.

COGNITIVE STYLE

Ability-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
Individual differences and formal operational performance of college students. *11:150-155*, Mar. 1980.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.

COLLEGE MATHEMATICS

Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
College students' comprehension of conjunction and disjunction. *12:212-219*, May 1981.
The construction of a logical-empirical structure of knowledge for differential calculus using a theoretical framework based on learning hierarchy theory and order theory. *12:163-164*, May 1981.
Research on mathematics education reported in 1979. *11:241-320*, July 1980.
Research on mathematics education reported in 1980. *12:241-319*, July 1981.

CONCEPT FORMATION

An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.
The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
Cognitive competence and mathematical development. *11:215-224*, May 1980.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Concept teaching strategy length. *11:235-238*, May 1980.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-166*, May 1980.
Exemplification and characterization moves in the classroom teaching of geometry concepts. *11:10-21*, Jan. 1980.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.
Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.

CONSERVATION

Cognitive competence and mathematical development. *11:215-224*, May 1980.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-166*, May 1980.

COUNTING

The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.

DRILL

Basic skills in mathematics: A survey. *11:104-123*, Mar. 1980.
Using a computer game to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.
Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.

ELEMENTARY SCHOOL MATHEMATICS

The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-166*, May 1980.
Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.
Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
Organizational strategies and practice procedures for teaching basic facts. *12:65-69*, Jan. 1981.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.
Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
Research on mathematics education reported in 1979. *11:241-320*, July 1980.
Research on mathematics education reported in 1980. *12:241-319*, July 1981.
Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.
Using computer games to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.

ERROR PATTERNS

- Computational requirements of standardized word problem tests. *11:3-9*, Jan. 1980.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.
Some cognitive factors and causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.

FRACTIONS

- Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
Calculators and the teaching of ratios in grade 7. *11:67-70*, Jan. 1980.
Cognitive competence and mathematical development. *11:215-224*, May 1980.
Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
Some cognitive factors as causes of mistakes in the addition of fractions. *12:70-76*, Jan. 1981.

GAMES

- Using a computer game to reinforce skills in addition basic facts in second grade. *12:152-155*, Mar. 1981.
Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.

GEOMETRY

- Children's spatial-perceptual preferences: A cross-cultural comparison. *11:156-160*, Mar. 1980.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
Exemplification and characterization moves in the classroom teaching of geometry concepts. *11:10-21*, Jan. 1980.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
Prediction of developmental stages in the representation of regular space figures. *11:83-93*, Mar. 1980.

INDIVIDUAL DIFFERENCES

- The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
Aptitude-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
Individual differences and formal operational performance of college students. *11:150-155*, Mar. 1980.
Intellectual abilities that discriminate good and poor problem solvers. *12:156-159*, Mar. 1981.
Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
Sex differences in first-year algebra. *11:335-346*, Nov. 1980.
Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.

INSTRUCTION

- Aptitude-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
Basic skills in mathematics: A survey. *11:104-123*, Mar. 1980.
Calculator algorithms for fractions with community college students. *12:349-355*, Nov. 1981.
Calculators and teaching of ratios in grade 7. *11:67-70*, Jan. 1980.
Communication of mathematical structure and its relationship to achievement. *11:37-49*, Jan. 1980.
Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-135*, Mar. 1980.
The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.
Exemplification and characterization moves in the classroom teaching of geometry instruction. *11:10-21*, Jan. 1980.
Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.
Preteaching versus concurrent teaching of the component skills of a multiplication algorithm. *11:375-379*, Nov. 1980.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.
When to allow student questions on homework. *11:71-75*, Jan. 1980.

INTERACTION

- Aptitude-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.

LEARNING

- The calculator for concept formation: A clinical status study. *12:323-338*, Nov. 1981.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Conceptual issues in the teaching and learning of fractions. *12:339-348*, Nov. 1981.
The construction of a logical-empirical structure of knowledge for differential calculus using a theoretical framework based on learning hierarchy theory and order theory. *12:163-164*, May 1981.
The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.

LOGIC

- College students' comprehension of conjunction and disjunction. *12:212-19*, May 1981.
Individual differences and formal operational performance of college students. *11:150-155*, Mar. 1980.
An investigation of senior high school students' understanding of the nature of mathematical proof. *11:165-166*, May 1980.
Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.

MANIPULATIVE MATERIALS

- Manipulative versus symbolic approaches to teaching logical connectives in junior high school: An aptitude \times treatment interaction study. *11:367-374*, Nov. 1980.

MEASUREMENT

- Cognitive development and learning linear measurement. *12:197-211*, May 1981.
The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-166*, May 1980.

MODELS (RESEARCH)

- An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.
A phase-ability model of mathematics problem solving. *11:179-189*, May 1981.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.

MULTIPLICATION/DIVISION

- Cognitive competence and mathematical development. *11:215-224*, May 1980.
The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
Preteaching versus concurrent teaching of the component skills of a multiplication algorithm. *11:375-379*, Nov. 1980.
Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.

NUMBER CONCEPTS AND SYSTEMS

- An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.
The addition methods of first- and second-grade children. *12:95-106*, Mar. 1981.
Communication of mathematical structure and its relationship to achievement. *11:37-49*, Jan. 1980.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.

PERCEPTION

- An attentional model for the conceptual construction of units and number. *12:83-94*, Mar. 1981.
Children's spatial-perceptual preferences: A cross-cultural comparison. *11:156-160*, May 1980.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
Prediction of developmental stages in the representation of regular space figures. *11:83-93*, Mar. 1980.

PIAGETIAN RESEARCH

- Children's spatial-perceptual preferences: A cross-cultural comparison. *11:156-160*, Mar. 1980.
Cognitive competence and mathematical development. *11:215-224*, May 1980.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
The effect of cognitive development on first-grade children's ability to learn linear measurement concepts. *11:163-166*, May 1980.
Individual differences and formal operational performance of college students. *11:150-155*, Mar. 1980.
Jean Piaget, psychologist of epistemology: A discussion of Rotman's *Jean Piaget: Psychologist of the real*. *11:29-36*, Jan. 1980.
Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.

PREDICTION

- Predictions of effective teaching in junior high mathematics classrooms. *11:167-178*, May 1980.

PRESCHOOL MATHEMATICS

- Research on mathematics education reported in 1979. *11:241-320*, July 1980.
Research on mathematics education reported in 1980. *12:241-319*, July 1981.

PROBLEM SOLVING

- Calculator use and problem-solving performance. *11:323-334*, Nov. 1980.
Computational requirements of standardized word problem tests. *11:3-9*, Jan. 1980.
Intellectual abilities that discriminate good and poor problem solvers. *12:156-159*, Mar. 1981.
A phase-ability model of mathematics problem solving. *11:179-189*, May 1980.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.
Problem structure and first-grade children's initial solution processes for simple addition and subtraction problems. *12:27-39*, Jan. 1981.
Recall of mathematical problem information: Solving related problems. *12:54-64*, Jan. 1981.
Task variables in mathematical problem solving. *12:234-238*, May 1981.

RESEARCH METHODOLOGY

- On useful research reports. *11:389-391*, Nov. 1980.
Research in mathematics education. *11:394-398*, Nov. 1980.
Toward research significance. *11:76-77*, Jan. 1980.

RESEARCH REVIEWS

- Dissertation publication: The issue of joint authorship. *11:391-393*, Nov. 1980.
On useful research reports. *11:389-391*, Nov. 1980.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.
(Review) Research in mathematics education. *11:394-398*, Nov. 1980.
Research on mathematics education reported in 1979. *11:241-320*, July 1980.
Research on mathematics education reported in 1980. *12:241-319*, July 1981.
Women and mathematics: Does research matter? *12:380-385*, Nov. 1981.

SECONDARY SCHOOL MATHEMATICS

- Advanced placement oriented calculus for high school students. *11:347-355*, Nov. 1980.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
The effects of two teaching strategies for teaching two mathematical skills. *12:220-225*, May 1981.
The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.
Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
An investigation of senior high school students' understanding of the nature of mathematical proof. *11:165-166*, May 1980.
The mathematics attitude inventory: Instrument and user's manual. *11:148-149*, Mar. 1980.
Mathematical preparation versus career aspirations: Sex-related differences among college-bound Wyoming high school seniors. *12:375-379*, Nov. 1981.

- Research on mathematics education reported in 1979. *11:241-320*, July 1980.
Research on mathematics education reported in 1980. *12:241-319*, July 1981.
Sex differences in high school students' causal attributions of performance in mathematics. *11:356-366*, November 1980.

STUDENT CHARACTERISTICS

- Ability grouping, mathematics achievement, and pupil attitudes toward mathematics. *11:22-28*, Jan. 1980.
Achievement and participation of women in mathematics: Results of two national surveys. *12:356-372*, Nov. 1981.
Attributions used by mathematics teachers in assessing achievement. *11:63-66*, Jan. 1980.
Cognitive development and learning linear measurement. *12:197-211*, May 1981.
Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
Conservation of length: An invariant—A study and a follow-up. *12:225-230*, May 1981.
Differential teacher grading behavior toward female students of mathematics. *11:202-213*, May 1980.
Differential treatment of females and males in mathematics classes. *12:40-53*, Jan. 1981.
Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
Individual differences and formal operational performance of college students. *11:150-156*, Mar. 1980.
Intellectual abilities that discriminate good and poor problem solvers. *12:156-159*, Mar. 1981.
Piaget's concept of number development: Its relevance to mathematics learning. *12:179-196*, May 1981.
Sex differences in high school students' causal attributes of performance in mathematics. *11:356-366*, Nov. 1980.
Women and mathematics: Does research matter? *12:380-385*, Nov. 1981.

SYMBOLS

- Conservation of equation and function under transformations of variable. *12:107-118*, Mar. 1981.
Incorrect procedures used by primary grade pupils in solving open addition and subtraction sentences. *11:50-62*, Jan. 1980.

TEACHER CHARACTERISTICS AND BEHAVIOR

- Differential teacher grading behavior toward female students of mathematics. *11:202-213*, May 1980.
Predictors of effective teaching in junior high mathematics classrooms. *11:167-177*, May 1980.
Student perception of teacher clarity in mathematics. *11:137-146*, Mar. 1980.

TEACHER EDUCATION

- Effectiveness of systematic instruction on attitudes and computational estimation skills of preservice elementary teachers. *11:124-135*, Mar. 1980.
Exemplification and characterization moves in the classroom teaching of geometry concepts. *11:10-21*, Jan. 1980.

TEACHING METHODS

- Aptitude-treatment interaction in mathematics instruction using expository and discovery methods. *11:225-234*, May 1980.
Concept teaching strategy length. *11:235-238*, May 1980.
The effects of two strategies for teaching two mathematical skills. *12:220-225*, May 1981.
Exemplification and characterization moves in the classroom teaching of geometry concepts. *11:10-21*, Jan. 1980.
Initial effect of calculators in elementary school mathematics. *12:119-141*, Mar. 1981.
Instruction in estimating solutions of whole number computations. *12:165-178*, May 1981.
Interactions of field independence and general reasoning with inductive instruction in mathematics. *11:94-103*, Mar. 1980.
A method of analyzing tests using the teacher's predictions. *12:142-151*, Mar. 1981.
Organizational strategies and practice procedures for teaching basic facts. *12:65-69*, Jan. 1981.
Predictors of effective teaching in junior high mathematics classrooms. *11:167-177*, May 1980.
Preteaching versus concurrent teaching of the component skills of a multiplication algorithm. *11:375-379*, Nov. 1980.
Using games to maintain multiplication basic facts. *11:379-385*, Nov. 1980.
When to allow student questions on homework. *11:71-75*, Jan. 1980.

TESTS

- The mathematics attitude inventory: Instrument and user's manual. *11:148-149*, Mar. 1980.
A method of analyzing tests using the teacher's predictions. *12:142-151*, Mar. 1981.
(Review) Problem-solving studies in mathematics. *12:386-390*, Nov. 1981.

TEXTBOOKS

- The evaluation of an application-oriented first-year algebra program. *11:190-201*, May 1980.

TRANSFER OF TRAINING

- Interaction of general reasoning ability and processing strategies in geometry instruction. *12:15-26*, Jan. 1981.
Preteaching versus concurrent teaching of the component skills of a multiplication algorithm. *11:375-379*, Nov. 1980.
Recalling of mathematical problem information: Solving related problems. *12:54-64*, Jan. 1981.

WOMEN AND MATHEMATICS

- Achievement and participation of women in mathematics: Results of two national surveys. *12:356-372*, Nov. 1981.
Differential teacher grading behavior toward female students of mathematics. *11:202-213*, May 1980.
Differential treatment of females and males in mathematics classes. *12:40-53*, Jan. 1981.
Increasing women's participation in mathematics: An intervention study. *12:3-14*, Jan. 1981.
Mathematical preparation versus career aspirations: Sex-related differences among college-bound Wyoming high school seniors. *12:375-379*, Nov. 1981.
Perception of the horizontal and vertical by college students. *11:385-388*, Nov. 1980.
Sex differences in first-year mathematics. *11:335-346*, Nov. 1980.
Sex differences in high-school students' causal attributions of performance in mathematics. *11:356-366*, Nov. 1980.
Women and mathematics: Does research matter? *12:380-385*, Nov. 1981.
Women and the mathematical mystique. *12:231-234*, May 1981.