STUDIES EVALUATING THE INFLUENCE AND EFFECTIVENESS OF CMP


American Association for the Advancement of Science: Project 2061 (2000). Middle grades mathematics textbooks: A benchmarks-based evaluation. Evaluation report prepared by the American Association for the Advancement of Science.


Bray, M. S. (2005). Achievement of eighth grade students in mathematics after completing three years of the Connected Mathematics Project. (Doctoral dissertation). Retrieved from Dissertation Abstracts International, 66(11). (ProQuest ID No. 1031063341) ABSTRACT: The purpose of this study was to examine the three-year effect of the Connected Mathematics Project (CMP) on the mathematics achievement of middle school students in a southeastern Tennessee public school district. This was accomplished by (1) comparing the mathematics achievement of eighth graders who have completed three years of CMP with their mathematics achievement after completing one and two years of CMP; (2) comparing the achievement of male and female students during the same period of time; and (3) comparing the mathematics achievement of historically underrepresented students after completing one, two, and three years of CMP.

In order to provide for a richer analysis of the CMP experience, the overall design employed quantitative and qualitative methodologies. The quantitative section of the study examined the mathematical achievement of almost 2,900 of the 2001-2002 eighth graders, over 3,000 of the 2000-2001 seventh graders, and over 3,100 1999-2000 sixth graders as evidenced by their Tennessee Comprehensive Assessment Program (TCAP) test scores. The qualitative segment of the study explored the experiences of the textbook adoption committee members, teachers, administrators, and parents.

Using the Tennessee Comprehensive Assessment Program mathematics total battery test score as the dependent variable, there was no significant difference between the mathematics achievement of students completing one or two years of CMP. However, there was a significant difference in the mathematics achievement between students completing three years of CMP when compared to their mathematics scores after one and two years. There was also a significant difference between male and female students after completing one and two years of CMP but no significant difference was detected after the completion of three years. Though there was a significant difference revealed in the achievement between African Americans and Non African Americans after completing one, two, and three years of CMP the gap closed slightly after completing three years. Overall, CMP students performed better on the state achievement assessment the longer they were being instructed using the standards based curriculum.

Cai, J., Moyer, J. C., Wang, N., Hwang, S., Nie, B., & Garger, T. (2012). Mathematical problem posing as a measure of the curricular effects on students’ learning. Educational Studies in Mathematics, 83(1), 57-69. ABSTRACT: In this study, we used problem posing as a measure of the effect of middle-school curriculum on students’ learning in high school. Students who had used a standards-based curriculum in middle school performed equally well or better in high school than students who had used more traditional curricula. The findings from this study not only show evidence of strengths one might expect of students who used the standards-based reform curriculum but also bolster the feasibility and validity of problem posing as a measure of curriculum effect on student learning. In addition, the findings of this study demonstrate the usefulness of employing a qualitative rubric to assess different characteristics of students’ responses to the posing tasks. Instructional and methodological implications of this study, as well as future directions for research, are discussed.


ABSTRACT: Evaluated the Connected Mathematics Project (CMP), a middle school reform mathematics curriculum used in Louisiana's Lafayette parish. Analysis of Iowa Test of Basic Skills and Louisiana Education Assessment Program mathematics data indicated that CMP schools significantly outperformed non-CMP schools. Surveys of teachers and students showed that both groups believed the program was helping students become better problem solvers.


ABSTRACT: The purpose of this study was to examine the three-year effect of the Connected Mathematics Project (CMP) on the mathematics achievement of middle school students in an urban school district. This was accomplished by (1) comparing the mathematics achievement of eighth graders who have completed three years of CMP with the achievement of eighth graders who have completed three-years of a traditional curriculum; (2) comparing the interaction and communication patterns in the two types of classrooms; and (3) comparing the mathematics achievement of historically underrepresented students in both curricula. In order to provide for a richer analysis of the CMP experience, the overall design employed quantitative and qualitative methodologies. The quantitative section of the study examined the mathematical achievement of 700 of the 1999-2000 eighth graders as evidenced by their State Basic Standards Test (BST) scores. The qualitative segment of the study explored the experiences of the primary participants, the teacher and the students.

Using the State Basic Standards Test as the dependent variable, there was no significant difference between the mathematics achievement of CMP students and that of traditional students after three years of the respective curricula. The achievement gap between CMP Caucasian students and CMP African American students was smaller than the achievement gap between these groups in the traditional curricula. The classroom interaction and communication patterns were very different. CMP classrooms provided more opportunities to learn mathematics than traditional classes. Moreover, CMP students demonstrated algebraic reasoning skills at the same level as the traditional students and demonstrated conceptual understanding through the use of multiple strategies at a higher level than traditional students. Overall, CMP students had a higher level of satisfaction and more positive experiences in their mathematics classes than did traditional students.


ABSTRACT: This study was designed to investigate the impact of the Connected Math Project curriculum on the student achievement of eighth grade students participating in the Delaware State Testing Program from 1998-2004. The study included an investigation of overall student achievement of students participating in the Connected Math Project as well as specific subgroup populations such as the Black and Special Education students.

The investigation revealed that overall student performance and subgroup population performance has increased since the first administration of the Delaware State Testing Program in 1998. A pair wise comparison probability for all test years indicates the increase in mean math scale scores was significant. However, additional pair wise comparison probabilities indicate the percentages of students meeting the state math standard are significant for comparison of test year 2000 with 2003 only. This indicates that although student mean math scale scores are increasing the percentage of students meeting the standard has not increased significantly. Student scores may be approaching the standard but not meeting or exceeding the standard. Pair wise comparison probabilities for the subgroup populations Black and Special Education also indicate a significant increase in the mean math scale scores but not a significant increase in the percentage of students meeting the standard.


ABSTRACT: Research has found that students are not adequately prepared to understand the concepts of geometry, as they are presented in a high school geometry course (e.g. Burger and Shaughnessy (1986), Usiskin (1982), van Hiele (1986)). Curricula based on the National Council of Teachers of Mathematics (NCTM) Standards (1989, 2000) have been developed and introduced into the middle grades to improve learning and concept development in mathematics. Research done by Rey, Reys, Lappan and Holliday (2003) showed that Standards-based curricula improve students’ mathematical understanding and performance on standardized math exams. Using van Hiele levels, this study examines 20 ninth-grade students’ levels of geometric understanding at the beginning of their high school geometry course. Ten of the students had been taught mathematics using a Standards-based curriculum, the Connected Mathematics Project (CMP), during grades 6, 7, and 8, and the remaining 10 students had been taught from a traditional curriculum in grades 6, 7, and 8. Students with a Connected Mathematics project background tended to show higher levels of geometric understanding than the students with a more traditional curriculum (NONcmp) background. Three distinctions of students’ geometric understanding were identified among students within a given van Hiele level, one of which was the students’ use of language. The use of precise versus imprecise language in students’ explanations and reasoning is a major distinguishing factor between different levels of geometric understanding among the students in this study. Another distinction among students’ geometric understanding is the ability to clearly verbalize an infinite variety of shapes versus not being able to verbalize an infinite variety of shapes. The third distinction identified among students’ geometric understanding is that of understanding the necessary properties of specific shapes versus understanding only a couple of necessary properties for specific shapes.


ABSTRACT: The aim of this study was to compare the acquisition of the van Hiele levels of sixth-grade students engaged in instruction using a reform-based curriculum with sixth-grade students engaged in instruction using a traditional curriculum. There were 273 sixth-grade mathematics students, 123 in the control group and 150 in the treatment group, involved in the study. The researcher administered a multiple-choice geometry test to the students before and after a five-week of instruction. The test was designed to detect students’ reasoning stages in geometry. The independent-samples t-test, the paired-samples t-test and ANCOVA with $\alpha = .05$ were used to analyze the data. The study demonstrated that although both types of instructions had positive impacts on the students’ progress, there was no statistical significant difference detected in the acquisition of the levels between the groups.


ABSTRACT: The "Connected Mathematics Project" ("CMP") is a mathematics curriculum designed for students in grades 6-8. Each grade level of the curriculum is a full-year program and covers numbers, algebra, geometry/measurement, probability, and statistics. The curriculum uses an investigative approach, and students utilize interactive problems and everyday situations to learn math concepts. The What Works Clearinghouse (WWC) reviewed 79 studies of "CMP". No studies of "CMP" meet WWC evidence standards, and one study meets WWC
evidence standards with reservations. The one study included more than 12,000 students from grades 6-8 in Texas. Based on this study, the WWC considers the extent of evidence for "CMP" to be small for math achievement. "CMP" was found to have no discernible effects on math achievement. Appended to this report are: (1) Study characteristics: Schneider, 2000 (quasi-experimental design); (2) Outcome measure for the math achievement domain; (3) Summary of study findings included in the rating for the math achievement domain; (4) Summary of cohort findings for the math achievement domain; (5) "CMP" rating for the math achievement domain; and (6) Extent of evidence by domain. (Contains 9 notes.) [The following study is reviewed in this intervention report: Schneider, C. L. (2000). "Connected Mathematics and the Texas Assessment of Academic Skills." (Doctoral dissertation, University of Texas at Austin, 2000). Dissertation Abstracts International, 62(02), 503A. (UMI No. 3004373). For previous WWC intervention reports on the "Connected Mathematics Project," see ED499297 (2007) and ED485389 (2004).


ABSTRACT: This effectiveness study explores the relationship between the use and adaptation of the Connected Mathematics Project instructional materials by middle grades teachers in an urban school district and their students' achievement. All middle grades mathematics teachers in Newark, NJ Public Schools were surveyed using the Surveys of Enacted Curriculum and the CMP Implementation Survey. The 6th, 7th, and 8th grade students in these teachers' first period classes completed the New Jersey Assessment of Knowledge and Skills for their grade. Using hierarchical linear modeling with two levels, we found that both increased use and adaptation of the instructional materials were related to increased student achievement. Implications for further research on instructional materials implementation and the design and implementation of materials are discussed.


ABSTRACT: This study examines the effects of Connected Mathematics Project 2 (CMP2) on grade 6 student mathematics achievement and engagement using a cluster randomized controlled trial (RCT) design. It responds to a need to improve mathematics learning in the Mid-Atlantic Region (Delaware, Maryland, New Jersey, Pennsylvania, and Washington, DC). Findings reveal that the type of instructional activity taking place in intervention schools differed from that in control schools, and the activity observed in intervention schools was the type expected when implementing CMP2. Sixty-four percent of intervention teachers reported implementing the curriculum at a level consistent with the publishers' recommendations on the number of units completed per school year (six), and 68 percent of them reported implementing the curriculum consistent with the recommended amount of class time per week. But CMP2 did not have a statistically significant effect on grade 6 mathematics achievement as measured by the TerraNova, which answered the primary research question. Indeed, grade 6 mathematics students in schools using CMP2 performed no better or worse on a standardized mathematics test than did their peers in schools not using it. The results for the secondary research question were similar. There was no statistically significant difference between groups in PTV, and the small effect size is unlikely meaningful. These results were insensitive to alternative model specifications. The lack of statistically significant effects is consistent with prior research on CMP2 rated in the 2010 WVC review as meeting standards "with reservations" (Schneider 2000) and the Eddy et al. (2008) RCT. The intent-to-treat analytical approach used in this study, which analyzes participants based on how they are randomly assigned, yielded unbiased estimates of program effectiveness as implemented. To estimate the effect of CMP2 under typical conditions, teachers were provided all the typical materials and PD that a normal school adopting CMP2 would have. However, while CMP2 use was tracked, the study team did not ensure a particular amount or quality of CMP2 instruction. So, the curriculum impact reflects the effect of a school being assigned to use CMP2 or to continue use of their regular curriculum, not necessarily of actually using CMP2. The results apply to the implementation of the CMP2 curriculum, after typical PD, in schools with grade 6 students. Use of a voluntary sample limits the findings to the schools, teachers, and students that participated in the study in the Mid-Atlantic region. The conclusions drawn in this study about the effects of CMP2 on student math achievement are limited to student math achievement as measured by the TerraNova, and do not generalize to any other standardized test.

Lessons, non-CMP students worked individually on homework about three times as often as CMP students. When it comes to text usage, CMP teachers were more likely than non-CMP teachers to work problems from the text and to utilize calculators (16%) or manipulatives (11%). Surprisingly, only small proportions of the CMP lessons followed lessons as laid out in the text. However, non-CMP students and teachers were more likely than CMP students and teachers to review examples or find formulas in the text. During lessons, non-CMP students worked individually on homework about three times as often as CMP students. When it came to text usage, CMP teachers were more likely than non-CMP teachers to work problems from the text and to follow lessons as laid out in the text. However, non-CMP students and teachers were more likely than CMP students and teachers to review examples or find formulas in the text. Surprisingly, only small proportions of the CMP lessons utilized calculators (16%) or manipulatives (11%).

The findings of the study indicate that the use of different curricula in the Caesar and Appoquinimink School Districts, CMP and MIC, respectively, did not equivocate to a significant difference in math achievement as measured by the math portion of the DSTP. Descriptive data did show that CMP students outperformed MIC students in terms of increasing their scale scores, but again this difference was not significant. It is important to note that the factors of gender and ethnicity did not contribute to any statistically significant differences between the groups.


ABSTRACT: The purpose of the study reported in this article is to examine the impact of curriculum on instruction. Over a three-year period, we observed 579 algebra-related lessons in grades 6–8. Approximately half the lessons were taught in schools that had adopted a Standards-based mathematics curriculum called the Connected Mathematics Program (CMP), and the remainder of the lessons were taught in schools that used more traditional curricula (non-CMP). We found many significant differences between the CMP and non-CMP lessons. The CMP lessons emphasized the conceptual aspects of instruction to a greater extent than the non-CMP lessons and the non-CMP lessons emphasized the procedural aspects of instruction to a greater extent than the CMP lessons. About twice as many CMP lessons as non-CMP lessons were structured to use group work as a method of instruction. During lessons, non-CMP students worked individually on homework about three times as often as CMP students. When it came to text usage, CMP teachers were more likely than non-CMP teachers to work problems from the text and to follow lessons as laid out in the text. However, non-CMP students and teachers were more likely than CMP students and teachers to review examples or find formulas in the text. Surprisingly, only small proportions of the CMP lessons utilized calculators (16%) or manipulatives (11%).


ABSTRACT: To measure the impact of a middle school math initiative on student achievement, a survey research design was used to categorize the levels of implementation by 7th-grade math teachers. The survey targeted the teachers’ participation in 4 key components of the middle school math initiative, based on an expanded model of the theory of action of standards-based reform by Elmore & Rothman (1999): district-led professional development, school walkthroughs, site-based team planning, and use of standards-based Connected Mathematics program. In a western urban school district, 18 of the 21 contacted teachers from 2002-2003 completed and returned their self-administered surveys. 26 of 33 from 2003-2004. The Year 1 teacher sample represented 29% of the total teacher population and their 1,259 students were 24% of the total student population. The Year 2 teacher sample represented 39% of the teachers and their 1,765 students were 33% of the total student population. The scale scores of these students from 18 schools were the dependent variable for analyses of variance. The independent variables were the year and the level of implementation that was determined by weighting the results from the teacher survey against a rubric of implementation created by the researcher.

The major findings showed statistically significant differences by years and by levels of implementation. The 7th-grade student math scale scores of the statewide standards-based assessment positively improved and the strength of the effect was small. Using a 2-way ANOVA to compare the 4 groups of high and low implementation in both years, there was a statistically significant difference between the students’ scores who experienced higher versus lower levels of implementation in their 7th grade math classes. The students of the higher implementation group of teachers, who had less teaching experience but attended more professional development and had more team planning, had higher math scale scores. The research results conclude that there was a statistically significant small improvement. Recommendations for further research suggest investigation of the quality of instructional delivery, not only the quantity of CMP units.
More involvement with instructional leaders on-site could support scheduling efforts for grade-level planning and more walkthroughs.


ABSTRACT: Approximately 1400 middle-grades students who had used either the Connected Mathematics Project (CMP) or the MATH Thematics (STEM or MT) program for at least 3 years were assessed on two widely used tests, the Stanford Achievement Test, Ninth Edition (Stanford 9) and the New Standards Reference Exam in Mathematics (NSRE). Hierarchical Linear Modeling (HLM) was used to analyze subtest results following methods described by Raudenbush and Bryk (2002). When Standards-based students’ achievement patterns are analyzed, traditional topics were learned. Students’ achievement levels on the Open Ended and Problem Solving subtests were greater than those on the Procedures subtest. This finding is consistent with results documented in many of the studies reported in Senk and Thompson (2003), and other sources.


ABSTRACT: This study was motivated by the relatively low student achievement in adaptive reasoning ability. One of ways to help students develop adaptive reasoning ability is applying the model of Connected Mathematics Project (CMP). The aim of this study was to determine the adaptive reasoning ability improvement among students who had learning mathematic with CMP model compared with conventional model, determine the increase of adaptive reasoning ability of students in the high group and low group who get the learning of mathematic by CMP model compared with students in the high group and low group with conventional model and determine students’ attitudes to learning mathematic with CMP model. The method used in this study was quasi-experimental. The population in this study is the eighth grade students of SMP Negeri 45 Bandung with two samples of the entire eighth grade class available. The instruments used were the adaptive reasoning ability test instruments, questionnaires, observation sheets and daily journals of students. The results of this study showed that the improvement of adaptive reasoning ability of students with CMP model better than students who had learning mathematic with conventional model. Furthermore, students in the high group and low group who get the learning of mathematic by CMP model have the adaptive reasoning ability better than students in the high group and low group with conventional model. In addition, students responded positively to the learning of mathematic with CMP model. Key Words: Adaptive reasoning ability, Connected Mathematics Project (CMP).


ABSTRACT: This study compared the mathematics achievement of eighth graders in the first three school districts in Missouri to adopt NSF-funded Standards-based middle grades mathematics curriculum materials (MATH Thematics or Connected Mathematics Project) with students who had similar prior mathematics achievement and family income levels from other districts. Achievement was measured using the mathematics portion of the Missouri Assessment Program (MAP) administered to all 8th graders in the state annually beginning in the spring of 1997. Significant differences in achievement were identified between students using Standards-based curriculum materials for at least 2 years and students from comparison districts using other curriculum materials. All of the significant differences reflected higher achievement of students using Standards-based materials. Students in each of the three districts using Standards-based materials scored higher in two content areas (data analysis and algebra), and these differences were significant.


ABSTRACT: Evidence-based policy and practice (EBPP) is widely advocated, and for good reason. Here, some challenges to EBPP are identified, illustrated by a large-scale evaluation of a major curriculum development project. Problems include: changes in educational goals, which necessitate the development of new measures of attainment; different time lines over which different patterns of result emerge; the challenge of defining a complex treatment, such as a new curriculum; and the variability of effect size in different classrooms. Several approaches are offered as responses to these challenges. The paper argues that much of the work on EBPP has focused on practice rather than on policy. Evidence-based policy will require detailed work on descriptions of systems and on systems change; more significantly, it will require the development of a new field of endeavor, associated with macro-systemic change, that is to say, the study of systems undergoing radical change.


ABSTRACT: Since the passage of the Education Reform Act in 1993, Massachusetts, has developed curriculum frameworks and a new statewide testing system. As school districts align curriculum and teaching practices with the frameworks, standards-based mathematics programs are beginning to replace more traditional curricula. This paper presents a quasi-experimental study using matched comparison groups to investigate the impact of one elementary and one middle school standards-based mathematics program in Massachusetts on student achievement. The study compares statewide standardized test scores of fourth-grade students using Everyday Mathematics and eighth-grade students using Connected Mathematics to test scores of demographically similar students using a mix of traditional curricula. Results indicate that students in schools using either of these standards-based programs as their primary mathematics curriculum performed significantly better on the 1999 statewide mathematics test than did students in traditional programs attending matched comparison schools. With minor exceptions, differences in favor of the standards-based program, remained consistent across mathematical strands, question types, and student sub-populations.


ABSTRACT: Connection mathematics ability will be greatly needed by students, especially to solve the problems that need the relation between mathematical concepts with other concepts in mathematics and other disciplines or in everyday life. To get that mathematics ability in this research used Connected Mathematics Project (CMP) model based on Presentation Media. CMP model based on presentation media was a student-centered learning model that involved student more; student not only did the problem but also sought the solution actively that enabled student to explore the relation of mathematical concept in real life. This research was a quasi experiment research with the student of 7th grade of Junior High School of Ujungjaya 2 of Sumedang district, Indonesia as the research sample. After the learning in the experiment class was conducted, the data description by using instrument of pre-test and post-test were collected to find out the student’s ability of mathematical connection, as well as observation sheet to find out the activity and condition of student during mathematical learning. The result of the research showed that the student’s mathematical connection ability by using Connected Mathematics Project (CMP) model based on presentation media was better than the conventional one. Besides, student’s activity in the learning process by using Connected Mathematics Project (CMP) based on presentation media was really positive and they became very active.

In this study campuses were not randomly selected to use the curriculum. CMP and non-CMP campuses were matched using a regression analysis of the significant variables predicting 1996 pre-CMP TAAS rates. Campus level TARS passing rates and student Texas Learning Index (TLI) scores were analyzed using mixed model methodology. There were 48 campuses represented in the campus level analysis and 19,501 students from 32 of these campuses in the student level analysis. Based upon an implementation survey, a high use subset of campuses was identified from teachers’ reporting that at least one-third of the total possible curriculum at every grade and year during the pilot was taught. The data were partitioned into cohorts: Cohort 1 represented observations from sixth, seventh, and eighth grades, from 1996-97 to 1998-99. Cohort 2 included data from sixth and seventh grades, 1997-98 to 1998-99. Cohort 3 had data for sixth grade, 1998-99.

For the analyses on TAAS percent passing and student TLI for all campuses and cohorts combined there is no difference between CMP and non-CMP campuses. When disaggregating the analyses by cohort, there is no difference between CMP and non-CMP campuses for either type of data for any individual cohort using all campuses. For the high use subset of campuses with all cohorts combined there is no difference between CMP and non-CMP campuses for either TAAS passing rates or student TLI scores. For the high use subset of campuses and students disaggregated by cohort, differences may be found, but they are not consistent. Research in this study indicates that the use of the CMP curriculum does not make a difference on TAAS passing rates or student level TLI scores.


ABSTRACT: This article reviews research on the achievement outcomes of mathematics programs for middle and high schools. Study inclusion requirements include use of a randomized or matched control group, a study duration of at least 12 weeks, and equality at pretest. There were 100 qualifying studies, 26 of which used random assignment to treatments. Effect sizes were very small for mathematics curriculum and for computer-assisted instruction. Positive effects were found for two cooperative learning programs. Outcomes were similar for disadvantaged and nondisadvantaged students and for students of different ethnicities. Consistent with an earlier review of elementary programs, this article concludes that programs that affect daily teaching practices and student interactions have more promise than those emphasizing textbooks or technology alone.


ABSTRACT: Research on the impact of Standards-based, K-12 mathematics programs (i.e., written curricula and associated teaching practices) and of reform calculus programs has focused primarily on student achievement and secondarily, and rather ineffectively, on student attitudes. This research has shown that reform programs have competed well with traditional programs in terms of student achievement. Results for attitude change have been much less conclusive because of conceptual and methodological problems. We critically review this literature to argue for broader conceptions of impact that target new dimensions of program effect and examine interactions between dimensions. We also briefly present the conceptualization, design, and broad results of one study, the Mathematical Transitions Project (MTP), which expanded the range of impact along those lines. The MTP results reveal substantial diversity in students’ experience within and between research sites, different patterns of experience between high school and university students, and surprising relationships between achievement and attitude for some students.


ABSTRACT: Since the advent of the NCTM Standards (1989), mathematics educators have been faced with the challenge of assessing the impact of Standards-based (or “reform”) curricula. Research on the impact of Standards-based curricula has predominantly focused on student achievement; here we consider an alternative: Students’ epistemological conceptions of mathematics. 297 participants were administered a Likert-scale survey instrument, the Conceptions of Mathematics Inventory. Of these, 163 had not experienced Standards-based curricula, while the rest had used a Standards-based curriculum for over three years. Our results indicate that students at the Standards-based site expressed more sophisticated epistemological conceptions of mathematics than those of the students from the
non-Standards-based site. We interpret this result to suggest that implementation of Standards-based curricula may be having an effect on students' epistemological conceptions of mathematics.


**ABSTRACT:** We examine student achievement of 2533 students in 10 middle schools in relation to the implementation of textbooks developed with funding from the National Science Foundation (NSF) or publisher-developed textbooks. Using hierarchical linear modeling (HLM), curriculum type was not a significant predictor of student achievement on the Balanced Assessment in Mathematics (BAM) or TerraNova Survey (TNS) after controlling for student-level variables. However, the Standards-Based Learning Environment (SBLE) moderated the effect of curriculum type. Students were positively impacted on the BAM by NSF-funded curricula when coupled with either Moderate or High levels of SBLE. There was no statistically significant impact of NSF-funded curricula on students in classrooms with a Low level of SBLE, and the relationship between publisher-developed textbooks and SBLE was not statistically significant. Moreover, there was no significant impact of either curriculum type when coupled with varying levels of SBLE on the TNS as the dependent measure.


**ABSTRACT:** An important component of the National Council of Teachers of Mathematics Standards is the equity principle: All students should have access to a coherent, challenging mathematics curriculum. Many in the mathematics reform community have maintained that this principle can be achieved through one well-designed curriculum. However, the extant research on equity—which focuses on either ethnic diversity or academic achievement—suggests that this principle is illusive. The current study compares the effectiveness of two curricula in teaching a range of math concepts to 53 (28 male; 25 female) middle school students at risk for special education services in math. The yearlong, quasi-experimental study involved achievement and attitudinal measures. Results indicated that students in the intervention group who used materials designed according to instructional principles described in the special education literature achieved higher academic outcomes (p < .05, p < .001) and had more positive attitudes toward math (p < .001) than did students in the comparison group.


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